SEPTEMBER 17, 1951 NEWS ISSUE

Electrical World

Price 35 Cents

A McGRAW-HILL PUBLICATION

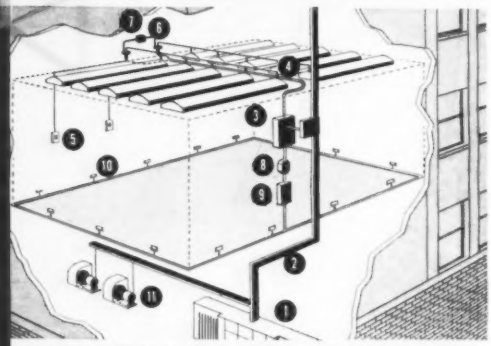
Karl R. Koerper, New Vice President of Kansas City P&L Co

Today You Don't Have to Milk by Hand.....Page 16

A Bigger Market for Power and Appliances.....Page 30

New higher-voltage system seen speeding better lighting for commercial buildings

"BIG STEP forward in commercial lighting," agrees Mr. C. I. Cady (right), Chief Electrical Engineer of Vorhees, Walker, Foley & Smith, N. Y. architects and engineers. H. H. Watson, G-E Construction Materials Department, discusses possible installation.



TYPICAL SYSTEM shows unit substation (1) supplying 480Y/277 volts to busway risers (2). Panel boards (3) supply 277 volts line-to-neutral for lights (4). G-E 24-volt remote control switches (5) control lights through relays (6) and transformers (7). 480/120-volt transformer (8) supplies panel board (9) for floor circuits (10). Elevator and air-conditioning motors (11) operate on 480 volts, line to line.

G-E Remote Control makes possible lower cost 277-volt fluorescent lamp circuits . . . aids promotion of improved lighting levels, higher commercial loads

Savings up to 25 per cent in equipment and installation costs are made possible by a new high-voltage fluorescent lighting system for commercial and public buildings, announced by General Electric.

Lamps are operated at 277 volts from a 480Y/277-volt, 3-phase, 4-wire supply. G-E remote control, using a 24-volt signal circuit and solenoid operated switches, provides safe switching and meets all requirements of the Underwriters' Standards.

Use of higher voltage for fluorescent lighting results in a substantial reduction in the amount of copper required for conductors. A simplified, more economical distribution system may be used to provide for both lighting and power loads.

Savings and other advantages made possible by this new system should stimulate the adoption of higher levels of lighting, long advocated by illuminating engineers and the electric utility industry. Full descriptive information on this new development is given in a newly published bulletin, GEA-5670. General Electric Company, Schenectady 5, N. Y.

MORE POWER TO AMERICA

GENERAL ELECTRIC

301-175

The Electrical Week

INDUSTRY MOBILIZATION—(Page 14)—Depa Administrator Fairman gives utilities some advice on how they can aid themselves and the industry during this critical defense mobilization period . . . Depa has adopted a new form (DEPA-9) which must be used by utilities in applying for permission and material allotments to build major plant additions . . . Depa has a plan ready to use if power supply becomes critical in the Pacific Northwest. Industrial and less essential usage would be curbed . . . Harvey Machine Co will get a $46-million loan from the government to build an aluminum plant at Kalispell, Mont.

WASHINGTON—Two Congressional committees plan to investigate Communist influence in United Electrical Workers Union (p 6) . . . Interstate Commission on the Potomac River would like to expand into a basin water resources agency under pending PWRPC legislation (p 11) . . . OPS indicates it plans "hands-off" policy with regard to utility rate increases (p 13).

ELSEWHERE—Cooperative in Ohio solves the problem of business-or-pleasure at its meetings (p 4) . . . Whether Northwest will get natural gas from Alberta for power purposes depends on hearings underway in Montana and Alberta (p 5) . . . Final decision in Roanoke Rapids case will be made by the Supreme Court, Appeals judge says (p 12) . . . There will be a bigger market in the future for power and appliances (p 30).

• • •

Latest from Washington—FPC and Depa will coordinate their data gathering in field of power supply and requirements . . . There may be power brownouts in Northwest but not in the next two weeks . . . NPA's Engine and Turbine Division is now responsible for material allotments for industrial heat exchangers, formerly handled by the General Industrial Equipment Division . . . Tennessee Valley had its driest August since 1929 but five months this year have been wetter than normal.

Copper production has resumed under 80-day Taft-Hartley injunction against Mine, Mill & Smelter Workers Union. Meanwhile Wage Stabilization Board works on wage dispute between CIO Steel Workers and American S&R.

Latest from Midwest—Central States Electric has been merged with Iowa EL&P. The per share earnings of both companies are expected to be improved . . . Every farm in Detroit Edison's 7,600-sq mile service has electricity available. The company now serves more than 36,000 farm customers.

FPC issues 50-year license to Oakdale (Calif.) Irrigation District and South San Joaquin Irrigation District to build $7.8-million, 17,000-kw hydro plant on the Stanislaus River in California.

Cost of Montana Power Co's Billings Plant, to be dedicated Oct. 6, is only $90 per kw, including land, switchyard, and power transformer. Turbogenerator will be outdoors even though average winter temperature is below freezing . . . "Power for North Florida" was theme at ground breaking last week for Florida Power Corp's $6-million, 33,000-kw Suwanee River Plant.

Despite addition of 587,500 kw since 1948, Southern Co has not been able to cut power costs. Increased load has forced operation of inefficient older plants and increased power purchases . . . Drought is forcing TVA to reopen small steam plants. Latest is Bowling Green (Ky.) Plant, shut down since March, 1949.

Lehman Bros offers secondary 29,000 common shares of Iowa-Illinois Gas & Electric at $25.50 a share . . . Blyth & Co group wins $6.5 million Imperial Irrigation District of California electric revenue bonds due 1955 to 1981 at net interest cost of 2.9547%; reoffers at prices to yield 1.80 to 2.95%.

Manitoba Hydro-Electric Board plans to recommend government purchase of Winnipeg Electric Co for $60 million . . . At Brattleboro Oct. 17-19 North Eastern Cooperative Association and City of Burlington may discuss plan to finance privately construction of a relatively large steam generating plant.

Japan has reorganized its power industry along private-enterprise pattern of U. S. Nine integrated but independent companies, subject to a national public utilities commission, have replaced the former generating and transmission company and nine distributing companies regarded as "monopolistic."

School lighting code in Russia is enforced by law; in U. S. no one has that responsibility, A. A. Brainerd, president of U. S. National Committee, ICI, reveals . . . Electrically operated gangways in new Houston Municipal Airport administration building will permit passengers to board or disembark from planes without being exposed to the weather.

Congratulations—Iowa Electric Light & Power Co names Vern H. Lear vice president . . . Ford, Bacon & Davis elects R. P. Westerhoff vice president.

Co-op Raps Business-or-Pleasure Bogey

Ohio Group Gives Up Trying to Mix Two, Holds Annual Meeting to Transact Affairs, Sponsors Day at County Fair to Entertain

Business or pleasure is often the choice rural electric cooperatives must make in arranging annual meetings. If the program is devoted too much to business, the members fail to attend. If too much pleasure is scheduled, members attend but little business is transacted. Morrow Rural Electric Cooperative, Mt. Gilead, Ohio, has made its choice, and officers believe it is the right one. The co-op chose business and pleasure but at separate times. In the future the co-op will have an annual meeting to transact business. The pleasure will be segregated in a day's program at the Morrow County Fair, Mt. Gilead.

Because active participation by members is one of the goals of rural electric co-ops, Morrow officials have been dissatisfied with attendance at annual meetings. In the past the meeting has been held in the local high school gymnasium. But only 18% of the members have been showing up. Those who appeared always seemed to be more interested in the door prizes and entertainment than in the voting and business.

A check was made of meetings of neighboring co-ops, held outdoors in summer. Although crowds of 4,000 to 5,000 would gather, about 500 at the most would participate in the business session.

MEMBERS, RELATIVES, AND FRIENDS enjoy program put on by a 4-H Club group

So the officers of the Morrow co-op decided to make a definite break between business and pleasure. The 1951 membership meeting was strictly business—no hoopla, no prizes, no entertainment. As anticipated, attendance dropped considerably. It was more like a glorified board meeting with about 100 persons discussing, arguing, and reaching decisions. One changed the election procedure.

The entire area served by the co-op was divided into nine districts. In the future each district will have one trustee. Members will vote only for the trustee from their district instead of voting for all the trustees, many of whom may be strangers from another county. Future nominations and elections will be conducted by mail in order to increase participation.

For a meeting whose goal would be pleasure, the co-op officers decided to sponsor the opening day at the Morrow County Fair. Fair officials were willing to go along with the "Co-op Day" plan—the fair had been in the red for a number of years. Though this was to be a pleasure event, co-op officials also thought that it would be a good place to do a little promoting for the co-op, the electrified farm, the electrical home, and other activities of benefit to the members.

Two free tickets were sent to every co-op consumer. Some 40% of these were used, and the co-op paid the fair full price for these. This boost was enough to put the fair in the black. Even though the racing card (the big attendance drawer) did not start until the following day, Co-op Day drew biggest daytime crowd of the week.

The co-op budgeted enough money to provide professional entertainment for one good show. But instead of hiring professional talent the money was given to the 4-H Clubs in the county which were trying to raise the county's quota of a State 4-H Foundation Fund. The 4-H Clubs provided the entertainment.

Every hour on the hour, not only on Co-op Day but each afternoon of the fair, a different club put on a show in the co-op's headquarters tent. The kids' shows might not have been so good as those of professionals, but they had much better audience appeal. All their relatives and friends were on hand to lend their support.

GIRLS from Miss America 4-H Club go into their act. This was only one of many clubs that entertained during the week at co-op's tent at the fair

Natural Gas for Northwest Hinges on Hearings in Montana and Alberta

Two hearings got underway last week—one in Billings, Mont., the other in Calgary, Alberta—that will have direct bearing on whether Montana and the Pacific Northwest will get natural gas from Alberta for use in the generation of power.

The Billings hearing, conducted by the Federal Power Commission, was on the application of Montana Power Co to import gas from the Pakowki Lake field in southeastern Alberta. The province has already given permission for the undertaking, which specifically would provide power for Anaconda Copper Mining Co.

FPC Must Form Opinion

Purpose of the FPC hearing is to form an opinion as to whether a presidential license should be granted for a gas line across the border. If FPC approves, the Departments of State, Defense, and Justice will also consider the proposition and make recommendations to the President.

Originally set for Aug. 20 in Washington, the hearing was postponed at the request of the National Coal Association, United Mine Workers of America, and the Railway Labor Executives Association. They have intervened to oppose the pipeline, which conflicts with their interests.

Subsidiaries Would Produce Gas

If the line is approved, two newly formed subsidiaries of Montana Power would produce and transmit the gas in Canada.

The Calgary hearing, concerning five applications to pipe gas to the Pacific Northwest, will be followed closely by power companies and government agencies who see natural gas as a way out of the power shortage in the area. Bonneville Power Administration, for one, would like to use gas to fuel three proposed steam plants. A bill authorizing construction of the plants was introduced a little more than a month ago by Rep Henry Jackson, Democrat from Washington State.

Hearing on the applications was adjourned by the Alberta Petroleum and Natural Gas Conservation Board early this year. In its report, the board said there were insufficient reserves to warrant export permits. However, it is reported new gas finds may have changed the picture considerably.

The five companies with natural gas applications pending are Westcoast Transmission, Prairie Pipelines, Northwest Natural Gas Co, Western Pipelines, and Canadian Delhi Co Ltd.

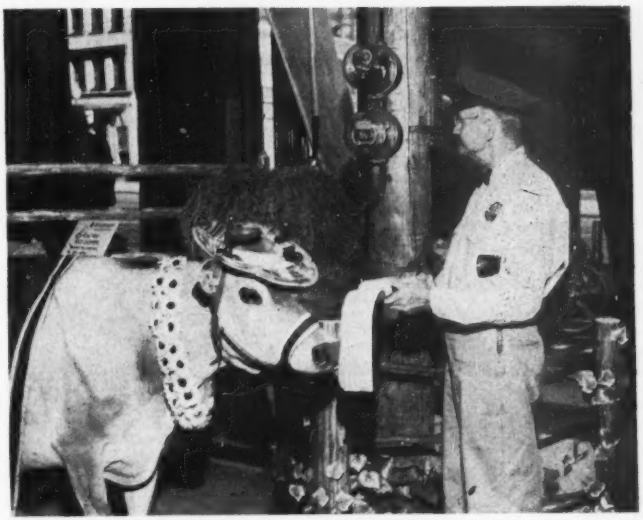
Alberta Premier Ernest Manning said recently the building of a gas line to the Pacific Coast is several steps closer to realization.

"There have been considerable changes since the hearings earlier this year," he said. "The substantial amounts of new gas discoveries are bound to make a difference when the conservation board holds its next session."

The Premier was less optimistic about an oil line. He thought there were more problems to be licked there than on gas, particularly marketwise.

"Oil has to meet the world price, even if it is a domestic line within our own borders," he said.

It might be that sales at the coast would return a lower net to producers than if things were to continue as they are, he pointed out, since the economics are much tougher than in the case of gas.



ELSIE, Borden's famous cow, tells meter reader of Cincinnati Gas & Electric Co that electricity used to run a milker is worth every cent it costs. She, herself, prefers the modern method of milking. The scene was photographed at the "More Power to the Farmer" exhibit held in the lobby of the utility's headquarters as part of the company's observance of Farm Electrification Week **(See Page 16)**

September 17, 1951 ELECTRICAL WORLD Vol. 136, No. 12

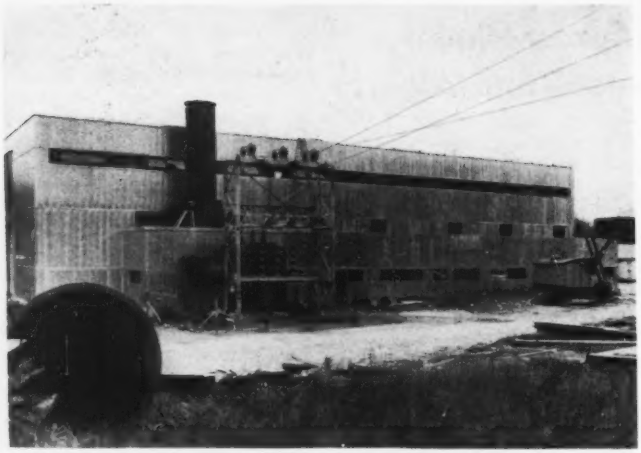
Member ABC and ABP

Published weekly by McGraw-Hill Publishing Company, Inc., James H. McGraw (1860-1948), Founder. **Publication Office, 99-129 North Broadway, Albany 1, N. Y. Executive, Editorial and Advertising Office: McGraw-Hill Building, 330 W. 42nd St., New York 18, N. Y.** Curtis W. McGraw, President; Willard Chevalier, Executive Vice-President; Joseph A. Gerardi, Vice-President and Treasurer; John J. Cooke, Secretary; Paul Montgomery, Senior Vice-President, Publications Division; Ralph B. Smith, Editorial Director; Nelson Bond, Vice-President and Director of Advertising; J. E. Blackburn, Jr., Vice-President and Director of Circulation.

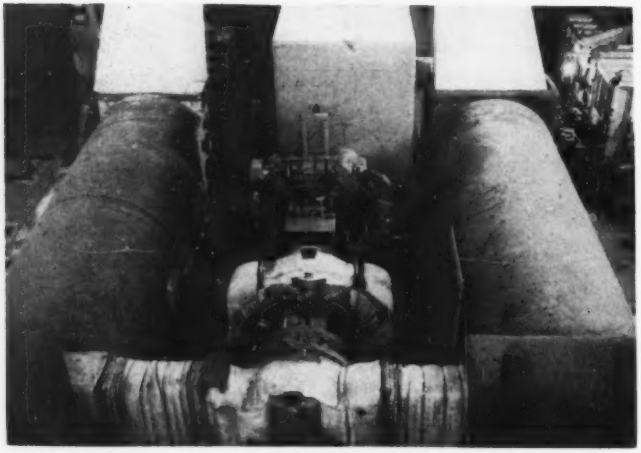
Subscriptions: Address correspondence to Electrical World—Subscription Service, 99-129 N. Broadway, Albany 1, N. Y., or 330 W. 42nd St., New York 18, N. Y. Allow ten days for change of address.

Please indicate position and company connection on all subscription orders.

Single copies 35¢. For the United States and possessions $6 a year, $9 for two years. Canada, $7 for one year, $11 for two years, $14 for three years. (Canadian money, at par.) Pan-American countries, $15 for one year, $25 for two years, $30 for three years. All other countries $25 for one year, $40 for two years, $50 for three years. Entered as second class matter, November 16, 1936, at the Post Office at Albany, N. Y., under the Act of March 3, 1879. Printed in U.S.A. Copyright 1951, by McGraw-Hill Publishing Company, Inc. Permission required to reproduce any of contents.



Central Vermont Steam Plant . . .



Will House 3 Gas Turbines

Three 5,000-kw gas turbines will spin the generators in the Rutland (Vt.) plant of Central Vermont Public Service Corp when the station is completed in 1952.

One of the units, shown in the lower picture, has already gone on the line for test purposes. Intercoolers are in left and right foreground, regenerators behind them. The generator is housed in the box-like structure at center rear. Along the shaft toward the generator are the high pressure starting motor, reduction gear, and accessories. Exhaust ducts can be seen rising left and right at rear of picture.

This unit is housed in the completed section at the left of the station's main building, top picture. On the ground in the left foreground is the exhaust stack for the second unit, which is now being installed. In the right background is one of the two 300,000-gal storage tanks for Bunker C oil used in the plant.

At a recent dedication ceremony, Harold L. Durgin, vice president and chief engineer, threw the switch that set the first turbine spinning. Plant will cost $3.6 million.

Village Asks State PUC to Oust Ohio Edison Co

The Village of Newton Falls, Ohio, has asked the state public utilities commission to direct Ohio Edison Co to abandon service within its boundaries, something the utility has refused to do.

The village argues Ohio Edison, which serves only 168 of 1,724 customers there, has been operating since 1941 without a franchise. A spokesman for the company said last week the utility definitely has a franchise to operate within the village. Arguments apparently would center on this point should the PUC schedule a hearing on the village's request.

Newton Falls has operated its own electric plant since 1941, and contends it now serves about 91% of the customers. This is the first time a municipality has asked the commission to authorize abandonment of service by a private utility against the utility's will, according to John Case, assistant attorney general.

•

2 Congressional Groups Plan to Investigate UE

United Electrical, Radio & Machine Workers Union is apparently in the investigative cross-fire of two Congressional committees. Thrown out of the CIO in 1949 for following the Communist line, UE still operates in many sections of the country.

A spokesman for the Senate Internal Security Subcommittee reports the group is collecting information on Communist infiltration in the electrical industry, including data on the UE.

The House Un-American Activities Committee has scheduled hearings for early October on Communist infiltration into UE locals in Massachusetts. This is in line with the committee's announced program of looking into Communist activities in defense industry centers.

Several Massachusetts UE officials have been directed to appear at the October hearings in Washington.

•

PSC Official Reappointed

Delaware's Gov Elbert N. Carvel has reappointed Vernon B. Derrickson, Dover, to a six-year term on the state Public Service Commission. The term will expire Sept. 1, 1957.

C-E REHEAT BOILERS

CONTRA COSTA STEAM PLANT

PACIFIC GAS & ELECTRIC COMPANY

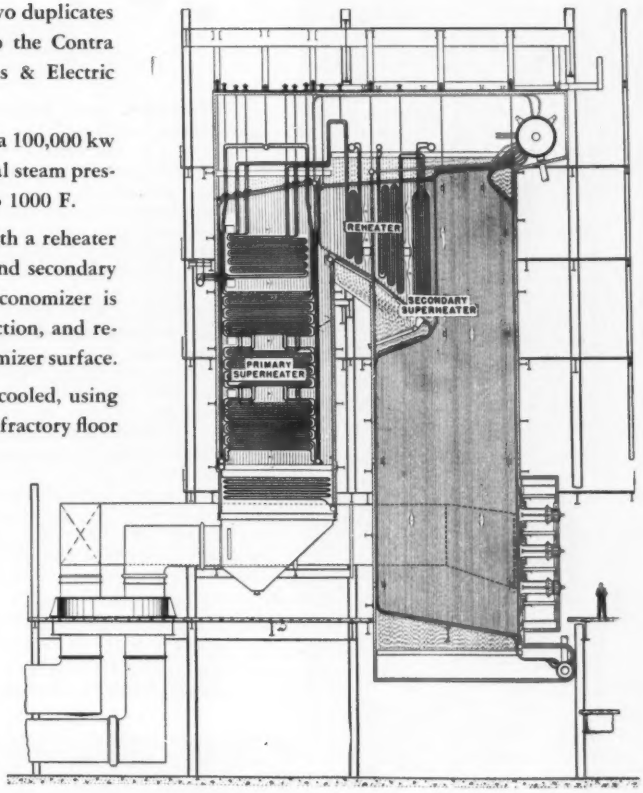
THE C-E Unit shown here is one of two duplicates now on order for the extension to the Contra Costa Steam Plant of the Pacific Gas & Electric Company.

Each of the units is designed to serve a 100,000 kw turbine generator operating at an initial steam pressure of 1450 psi at 1000 F, reheated to 1000 F.

The units are of the radiant type with a reheater section located between the primary and secondary superheater surface. A finned tube economizer is located below the rear superheater section, and regenerative air heaters follow the economizer surface.

The furnaces are completely water cooled, using closely spaced plain tubes and have a refractory floor supported by water tubes.

Initially these units will be fired by oil or gas, but the design contemplates the possible future use of pulverized coal if desired. B-515



C-E

COMBUSTION ENGINEERING—SUPERHEATER, INC.

200 Madison Avenue • New York 16, N. Y.

ALL TYPES OF BOILERS, FURNACES, PULVERIZED FUEL SYSTEMS AND STOKERS; ALSO SUPERHEATERS, ECONOMIZERS AND AIR HEATERS

PINCO
INSULATORS

MEMO:

To Manufacturers of Electrical Equipment requiring Bushings or Special Porcelain

PINCO
L 2382
Bushing

Made especially for either primary or secondary use where low-voltage, high currents are required. Clamp terminals have large area contact for conductors, and are provided with a heavy through type stud.

SPECIFICATIONS
Ampere Rating 400
Clamp Range .375 Min.-.700 Max.

PINCO
L 2500
Low Voltage
Transformer
Bushing

SPECIFICATIONS
KV Rating 15
Withstand Test Voltage
1 Minute Dry ..... 35 KV.
10 Second Wet ..... 30 KV.
Clamp Range .187 Min.-.375 Max.

Pinco for many years, has been expanding its special porcelain facilities to meet the ever increasing demand for custom-made porcelain by electrical equipment manufacturers. The fact that many applications of porcelain insulation are of a special nature thereby requiting specially designed and fabricated porcelain, accounts for the tremendous growth of this particular phase of our business.

In addition to custom-made porcelain, Pinco also produces a standard line of dry type Transformer Bushings, such as the L2657 shown here. These Bushings are equipped with standard terminals and are furnished completely assembled with the necessary hardware ready for mounting on transformers or other applicable equipment. Made by the famous Pinco wet plastic porcelain process, these Bushings embody all of the superior electrical and mechanical qualities which characterize Pinco transmission and distribution insulators.

PINCO L 2567
Dry Type Bushing

SPECIFICATIONS
Voltage Rating 8.6
Ampere Rating ..... 400 Amp.
Max. Cable Size ... 400,000 C.M.

Quotations on Pinco special porcelain are made from customer blue print or sketch. If you wish, our engineering department will assist you in designing the porcelain you require. *Refer to Pinco Catalog No. 49 for complete specifications on standard bushings.*

The Porcelain Insulator Corporation
766 Main St., Lima, N. Y.

Sales Agents: JOSLYN MFG. & SUPPLY CO.
Offices in Principal Cities

PINCO
INSULATORS

Suspension Insulators . . . Switch and Bus Insulators . . . Distribution Clamps . . . Distribution Pin Types and Guy Strains . . . Transmission Line Fittings . . . Tree Insulators . . . Transformer and Circuit Breaker Bushings . . . One Piece and Multi-part High Voltage Pin Types . . . Suspension and Strain Clamps . . . Indoor Bus Support Porcelain . . . Lightning Arrester Porcelain.

Now you get DOUBLE holding power

L-M Guy Clamps with TORKOL-Treated Nuts

Work Faster, Easier!

Now you can use *one* guy clamp where you formerly used two! Tests show that with Torkol nut lubricant—an L-M "exclusive"—wrench torque develops twice the normal holding power of an untreated clamp. High strength, heat-treated bolts assure plenty of extra strength.

THESE TESTS TELL THE TORKOL STORY

Recent tests compared the holding power of Torkol-treated 3-bolt clamps with untreated 3-bolt clamps. The pull required to produce ⅛-inch slip of the guy strand was measured for a wide range of wrench-torque values. Results were plotted into comparative "Nut-Torque vs. Holding Power" curves shown at the right.

SEE WHAT A DIFFERENCE!

To hold a pull of 7000 pounds, using ⅜" high strength guy strand and clamps with ⅝" dia. bolts, required the following nut torques:

with *un*treated clamps, 120 foot-pounds torque;

with Torkol-treated clamps, 52 foot-pounds—less than half as much!

The extra holding power of L-M Torkol-treated guy clamps often permits the use of a clamp with smaller bolts. For example: With 3-bolt clamps with ⅝" bolts, on ⅜" HS strand, with 90 foot-pounds of torque:

*un*treated clamp held a 5800-pound pull;

Torkol-treated clamp held 12,400 lbs.

With a 3-bolt clamp with ½" bolts:

*un*treated clamp held a 3800-poupd pull;

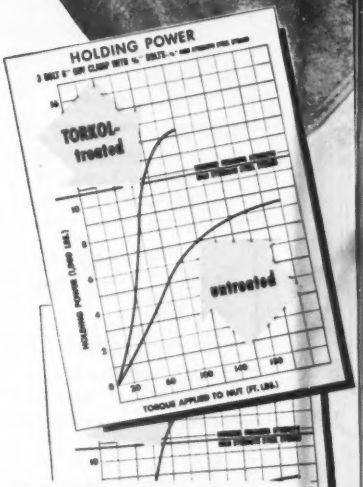
Torkol-treated clamp held 9700 pounds.

The Torkol-treated clamp with ½" bolts held 3900 pounds more than the untreated clamp with ⅝" bolts! The possible savings are obvious.

SERVES YOU BETTER—COSTS NO MORE

With L-M Guy Clamps, you save on material, cut installation time, and get far better strength-balance in the whole guying installation. What's more, Torkol-treated L-M clamps contribute to worker-safety, for they seldom require heavy muscular effort with its risks of straining and danger. *And L-M Torkol-treated clamps cost you no more!*

Torkol is a Line Material Trademark



GET THESE NEW FACTS ON "TORKOL"

Want a complete set of these new Torkol test curves? Eight charts cover the guy-strand range from ¼" to ⅝"—and permit coordination of guy clamp holding strength with that of other components. Ask your L-M Field Engineer, or write Line Material Company, Milwaukee 1, Wis. (a McGraw Electric Company Division).

L-M Guy Clamps are made in styles from one to four bolts, of heavily galvanized steel. Smooth grooves with rounded edges prevent strand damage. The high-strength bolts may be inserted from either side.

All nuts are Torkol-treated—identified by their yellowish color. They go on quickly, stay tight, unscrew easily, may be reused. Clean. Dry. Unaffected by weather or weather changes.

LINE MATERIAL

Line Construction Materials

Complete Coordinated Equipment for Distribution Today

7 Great Features

ALLIS-CHALMERS 5/8% STEP REGULATORS

	AFR Three phase regulator, sizes through 69 kv, 2500 kva.	DFR Single phase regulator, sizes through 6900 v, 250 kva.	JFR Single phase regulator, 11.4 and 38.1 kva, 7620 v.
1 5/8% Steps	✓	✓	✓
2 Close regulation (±1 volt band)	✓	✓	✓
3 Easy control adjustment. The same type control used on all sizes	✓	✓	✓
4 Close average voltage (maintained by voltage integrator)	✓	✓	✓
5 Long life contacts of liberal design to withstand hundreds of thousands of operations	✓	✓	✓
6 Tap changing drive mechanism with balanced spring action to eliminate shock . . . operates under oil for long trouble-free life	✓	✓	✓
7 Unit construction to simplify your maintenance requirements.	✓	✓	✓

FOR ALL REGULATION JOBS — from an 11.4 kva regulator on a small feeder to the biggest 2500 kva three phase unit — Allis-Chalmers 5/8% step regulators provide all seven of the quality features checked off above.

That's why you can count on Allis-Chalmers for regulation that helps boost capacity, increase revenue, and improve customer good will.

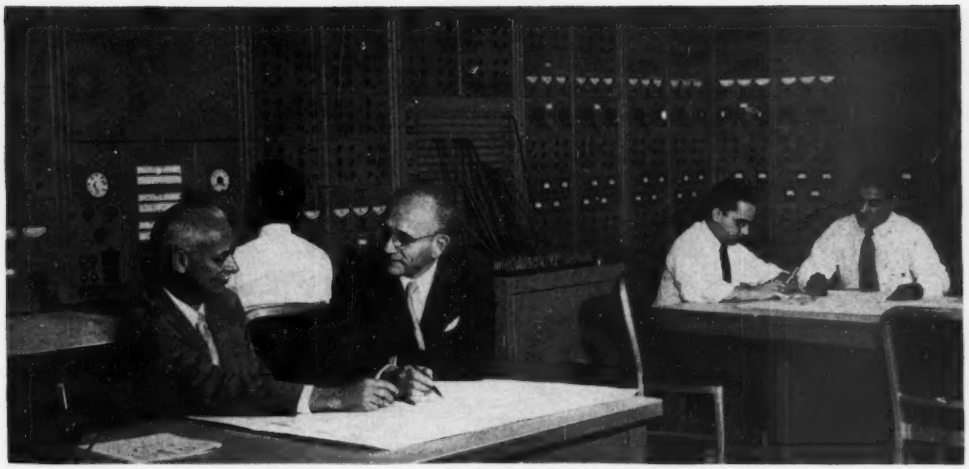
In addition to these important advantages, 5/8% step regulators require only 1/3 the exciting current of older types of single phase regulators. The low exciting current releases system capacity for useful loads.

Get the complete facts on how Allis-Chalmers 5/8% step regulators can help you from your nearest Allis-Chalmers district office, or write Allis-Chalmers, Milwaukee 1, Wis.

A-3466

ALLIS-CHALMERS

Originators of 5/8% Step Regulation



NEW NETWORK ANALYZER of the American Gas & Electric Co provides the background for conference of System Planning Engineer H. P. St. Clair and Philip Sporn, AG&E president. The former will have direct charge of the board and staff

Potomac Commission Doesn't Want to be an Adjunct of Federal Agency

The Interstate Commission on the Potomac River Basin would prefer to expand into a water resources agency for the entire Chesapeake Bay drainage basin, rather than become an adjunct of one of the federal regional commissions now under consideration. This was learned from statements made at the commission's recent annual meeting at Bedford, Pa.

The commission, whose thinking is paralleled by that of other basin agencies, will meet in Washington Sept. 27 to draw up recommendations for submission to the Bureau of the Budget.

President Truman has asked the budget bureau to coordinate recommendations of federal agencies and other interested groups before basic legislation is drafted to carry out recommendations of the President's Water Resources Policy Commission (EW, Dec. 25, 1950, p 4). The draft proposal will go to Congress next year.

Potomac Basin spokesmen praised the budget bureau as having an open mind on the proposed law. But the bureau's interpretation of PWRPC recommendations calls unmistakably for Congress to create regional agencies to coordinate water development activities and prepare comprehensive multiple-purpose plans for the river basins. These regional agencies, as outlined in PWRPC reports to the President, would have advisory boards representing the interested states. Congress further would set up a federal board of review to pass on recommendations of all river basin commissions before the proposals were submitted to Congress.

Many of the Potomac commissioners are not satisfied to have their interstate commission become an advisory adjunct of a bigger regional agency that would coordinate the planning of a larger area. They think the commission should be expanded under federal law to take in the Chesapeake area and its planning.

The commission hopes to meet with three others on the budget bureau list to work out unified policy recommendations before their suggestions are submitted.

•

Secretary of Idaho PUC

Stephen L. Guice has been appointed secretary of Idaho Public Utilities Commission.

AG&E Dedicates Network Analyzer at New York

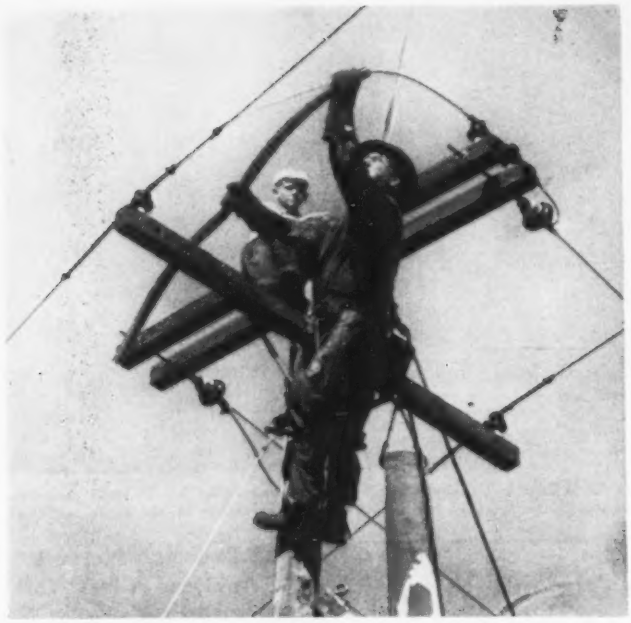
American Gas & Electric Co's seven-state power system will have its own network analyzer. It was dedicated to service Sept. 11. The board, which is located at AG&E headquarters, 30 Church Street, New York, will be used for study of system performance and projection.

The $230,000 electronic board is comprised of 250 unit panels, 420 relays, 110 meters, 1,800 dials, and 2,540 jacks. This array affords means for simulating 16 generator units or generating plants, 130 points of transmission linkage, and a corresponding number of capacitor banks, switching stations, etc. As a result, any combination of plants, transformer stations, load regulators, and lines can be set up for observation and guidance in shaping the paths of expansion for the growing AG&E system.

As Philip H. Sporn, AG&E president, declared, H. P. St. Clair, system planning engineer, "can turn the clock ahead and operate the system (in minature) as we expect it to be in 1960 or even 1975, for that matter."

The board was designed by engineers of the American Gas & Electric Service Corp and was constructed by General Electric Co.

AG&E has been using several of the other 20 or so boards in the country, but increased usage made necessary installation of its own board.



CAT WENT UP pole in Massena, N. Y. Dick Dear, his 10-year-old owner, went up after him. Cat came down pole. Dick perched amidst 4.8 kv lines. Niagara Mohawk Power Co employee did some hot line work, carried Dick down the pole

Final Decision on Roanoke Rapids Will Be Made by USSC, Judge Says

The Supreme Court most likely will decide whether the Roanoke Rapids power site in North Carolina will be reserved for federal development or opened to private development by Virginia Electric & Power Co.

Near the conclusion of oral arguments in the case before the Fourth Circuit Court of Appeals in Baltimore last week, Chief Judge John Parker told attorneys for the conflicting interests:

"There isn't any doubt but what this case is going to the Supreme Court, no matter which way we decide here."

Interior Department is seeking to void the license granted to Vepco by the Federal Power Commission for construction of a 91,000 hydroelectric power plant and dam at the Roanoke Rapids site.

During the course of arguments Sept. 5, the three-judge tribunal directed the brunt of its questions at two points in the drawn-out controversy:

1. Has Congress expressly reserved the 11 dam sites in the comprehensive Roanoke River Plan, including Roanoke Rapids, for federal development?

2. Does Interior have a direct interest in the case which would qualify the department to protest granting of the license?

Gregory Hankin, counsel for Interior, argued that Congress in the 1944 Flood Control Act adopted and authorized the comprehensive plan for development of the Roanoke River Valley, including Roanoke Rapids.

Opposing counsel argued that the 1944 act authorized only two of the 11 dams in the comprehensive plan, and Roanoke Rapids was not reserved for federal development.

On the second point, FPC and Vepco argued that Interior's interest is limited to marketing of power from federally constructed dams, and it has no responsibility in determining which are to be reserved for federal construction.

Hankin said the Interior Secretary's responsibility begins after the first engineering surveys are made. He argued further that the Secretary must take a part in guiding development of hydroelectric projects since he is charged with marketing the power.

•

Concrete Pouring Started at Chief Joseph Dam Site

Concrete pouring has begun at Chief Joseph Dam, Wash. This operation was a milestone in Columbia River development.

The dam, located near Bridgeport, will be 220 ft high and will have the second largest hydroelectric power plant in the world. It will be second only to its upstream brother, Grand Coulee Dam.

The powerhouse will be the longest single one in the world, extending more than 2,000 ft downstream. Chief Joseph's backwater will extend 51 miles upstream to the tailrace of Grand Coulee Dam. Ultimately the plant will be developed to house 27 generating units of 64,000 kw each with a total 1,728,000 kw of installed capacity.

Chief Joseph is slated for completion, with the first four generators in service, in 1956.

•

Franchises Renewed

Langston and Mulhall, Okla., have voted to renew 25-year franchises of Oklahoma Gas & Electric Co.

New Peaks Reached

The Union Electric system, St. Louis, Mo., reached two new records during August. Peak load for Aug. 29 was 1,003,000 kw; the previous record was 1,001,000 kw on Aug. 7. The company, which attributed the records to high humidity and high heat, said the figures apply to the territory of Union Electric Co of Missouri and its Illinois subsidiary, Union Electric Power Co, but not to the out-state subsidiary, Missouri Power & Light Co.

OPS Utilities Unit Hopes to Maintain 'Hands Off' Policy on Rate Increases

As far as possible, the Public Utilities Branch of the Office of Price Stabilization hopes to maintain a "hands off" policy as far as utility rate increases are concerned.

OPS has no direct authority to control rate increases, but is allowed "timely intervention" in hearings before commissions studying applications for rate increases on services sold for resale.

Only in cases where the Public Utilities Branch sees proposed increases as a present danger in contributing to inflation does it propose to intervene.

Intervening in Only 9 Cases

This policy is fairly well demonstrated in the branch's work record to date. In the six months of its existence, it has announced its intention to intervene in only nine rate increase hearings. Seven of these involved natural gas pipelines. Only two involved sale of electric power. These were rate increase proposals by Pacific Gas & Electric Co and California Electric Power Co.

During World War II, the Office of Price Administration intervened in several thousand rate increase cases. Yet, it had no stronger authority than that under which OPS is now working.

Head of the Public Utilities Branch is James W. Lauderdale, a former member of the District of Columbia Public Utilities Commission. He sees his job as one of working closely with state utility commissions and federal regulatory bodies to see that rates are reasonable for consumers.

"No Intention of Interfering"

"We're not going into this with the idea of opposing every increase," Lauderdale said. "Where the increases are justified, we have no intention of interfering."

The branch is aware that close regulation of rates might tend to put a damper on the expansion of the economy—especially as it is affected by power utilities. Lauderdale made it clear he has no intention of slowing down such expansion.

On the contrary, Lauderdale hopes to follow policies which will contribute to an orderly expansion of the economy in line with goals set by the Defense Production Administration.

The industry will add 6 million kw in 1951, 7.5 million in 1952. Total expenditures will be close to $3 billion this year, $3.4 billion in 1952.

In determining whether or not to intervene in a case, OPS has its eye trained more keenly on the effect of a proposed increase at the household consumer level than at the industrial or commercial level. It is making no attempt to set up nationwide or even regional price ceilings for utility rates. Rather it is studying each application for a rate increase to determine the effect it will have on the economy of the area affected.

Decisions on intervention lie exclusively with the Public Utilities Branch in Washington. Although the branch may call on OPS field offices for information and aid, these offices have no authority to determine the need for intervention or to initiate action. Utility rate structures are too technical for field offices to handle.

The branch now has a number of gas, electric, and water rate increase cases under analysis, but has made no determination as to whether it will intervene in additional cases in the near future.

Denies Knowing of Plan to Sell WWP to PUD's

A public utility district official reported recently he knows nothing of plans of American Power & Light Co to sell Washington Water Power Co, a subsidiary, to a combination of public utility districts.

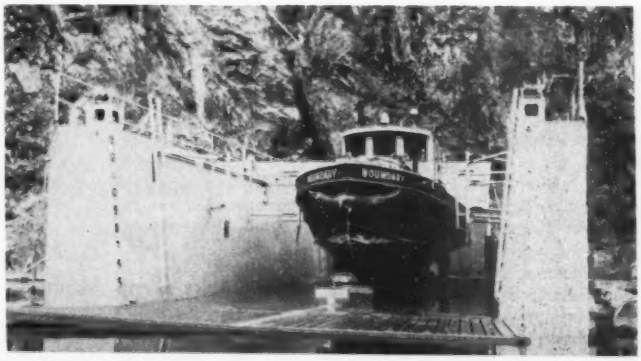
Jack L. Richardson, chairman of the Chelan County PUD, further declared that three eastern Washington public utility districts had given up hope of buying WWP because of a permanent court injunction issued last spring against such a purchase.

The PUD's attorney also stated no proposal has been made to the Chelan district by American. He said, however, that Guy Myers, an eastern utility expert who often acts as an intermediary in the sale of utilities to public groups, "has been trying to arrange something."

•

Suit to Oust Jeffe Filed

A stockholder of Kings County Lighting Co has started a suit in Brooklyn (N. Y.) Superior Court to oust Ephraim F. Jeffe as president of the gas utility. The suit charges that Jeffe and the firm's board of directors are wasting and squandering company funds and "furthering the interest of the competitive Consolidated Edison Co." Jeffe who retired as a Con Ed vice president last October, was named president and chairman of the board of Kings County Lighting Aug. 3.



DRYDOCK of Seattle City Light, probably only utility drydock in the United States, houses one of City Light's five boats operating on lake behind Ross Dam on the Skagit project. Boats are from 30 to 50 ft long, sleep as many as six men. Boats clean lake of driftwood following commercial logging season in the Northwest

Fairman Gives Utilities Some Advice

Here is some advice to electric utility companies as to how they can aid themselves and the industry during the present critical defense mobilization period. It was given by Depa Administrator James F. Fairman at the recent fall conference of the Maryland Utilities Association:

1. Inform as many people as possible of your own individual programs and of the importance of your programs to mobilization for defense. Let's make sure that no one is ignorant of the facts because we failed to tell him the story.

2. Utility management must be careful not to adopt an ostrich-like attitude when it can see trouble ahead. How can we expect the policy makers who have to cut the material pie to make the necessary adjustment for the utility industries unless they have real facts concerning the problems? When you see trouble ahead, send in the facts fully documented to the agency sponsoring your program.

3. Immediately put your own company on a voluntary basis of full cooperation with known conservation measures. You will find many opportunities for reducing your use of critical materials and for putting more scrap into national metal channels. In addition, it is absolutely essential to coordinate deliveries of equipment with construction so that the entire industry may benefit from the available supply. Conservation, like charity, begins at home.

4. Alert your organizations to the needs of the day. America cannot step up its productivity unless its people work harder and longer. The utilities will not fulfill their obligations to their customers unless every employee makes a contribution which is just a little beyond the call of duty.

Utilities Must Use New Depa Form to Get Plant Construction Materials

In line with order M-50, Defense Electric Power Administration has adopted a new form for use by utilities in applying for permission and material allotments to build major plant additions.

The new form, DEPA-9, supersedes forms DPA-2, DPA-3 and DEPA-3S. It is to be used in preference to these as soon as practicable, but it is not necessary to resubmit information already given on the old forms. However, any amendments to forms already submitted are to be made on the new form. Use of DEPA-9 becomes mandatory after Sept. 21.

Major changes between the superseded forms and DEPA-9 include:

1. Material requirements for the life of the project are requested. Columns are provided for requirements through the fourth quarter of 1953. Additional sheets are to be used to list requirements for the projects running beyond that date.

2. Listing of items required for the project has been separated into two sections. The first covers controlled materials and class A products. The second includes class B products and items other than controlled materials.

3. Space is provided to list other major plant additions which may be closely related to the project for which permission is requested.

4. More comprehensive information is requested on the "Description and Statement of Necessity" for the project.

5. Four copies of DEPA-9 are requested as compared to only three of the superseded forms.

•

DPA Seeks Scrap Abroad

Defense Production Administration is looking abroad for scrap. It has a team of experts on its way to Korea to try to get an estimated 500,000 tons of battlefield scrap shipped to the U. S.

Depa Has Plan to Cut Northwest Power Usage

If the power supply becomes critical in the Pacific Northwest this winter, the Defense Electric Power Administration is prepared. It has a tentative order ready for use if needed. This sets forth a method for controlling industrial use of electricity and curbing less essential uses. An appeal would be made to domestic users to reduce their consumption.

The chief of Depa's Utilization Conservation Branch has been assigned to keep tab of the area and determine when the more drastic measures are needed.

Deputy Depa Administrator Ken G. Whitaker announced the preparations at the Pacific Northwest Power Conference held at Tacoma Sept. 4. The conference, called by Depa, was attended by representatives of electric power suppliers in the region and utility commissioners of Oregon and Washington.

•

NW Aluminum Plant Loan Is Approved by DPA

Defense Production Administration has cleared the way for a $46 million government loan for construction of an aluminum plant at Kalispell, Mont., which would use electric power from the Hungry Horse project.

The loan, part of which will be used for a bauxite refining plant north of Seattle, is to be made to the Harvey Machine Co of Los Angeles.

C. G. LASLIE, chief of Program and Requirements Branch of NPA's Electrical Equipment Division

NEW KYLE 23 KV

Interrupting capacity 1500 amperes at 23 kv

150 kv basic impulse level

Cross-blast arc extinction

5 to 100 ampere ratings; rating rapidly and easily changed in the field

L-M's new KYLE type E recloser is specially designed for 23 kv service. The type E has exceptionally strong construction, with large contacts of finest arc-resisting material. The oil cross-blast feature insures very rapid extinction of the arc.

The recloser provides ample protection for circuits with loads up to 100 amperes and fault currents up to 1500 amperes. It is extremely accurate, with dependable hydraulic timing proved by years of field experience. In fact, well over half the reclosers in service today are Kyles! Type E's will coordinate with one another as well as with fuses on branch circuits.

The unit provides up to three successive reclosures plus final opening to lockout. Choice of three operating curves, seven operating sequences. Has all the Kyle safety features. Built-in coil protection. Radio noise-free. Meets applicable AIEE and NEMA standards or proposed standards, and is REA-accepted. Filled with ORTO®, L-M's inhibited oxidation-resistant transformer oil, for longer life.

Get the Whole Story

Ask the L-M Field Engineer to tell you all about this new Kyle type E recloser; or write for copy of bulletin to Line Material Company, Milwaukee 1, Wisconsin (a McGraw Electric Company Division).

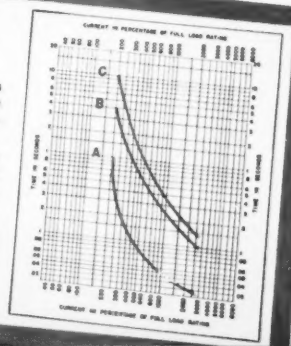
42

LM®

LINE MATERIAL

Choice of Seven Sequences

Kyles are the only reclosers offering choice of at least three time-current curves and seven tripping sequences. Curve A, fast; curve B, retarded; curve C, extra retarded. Sequences quickly and easily changed in the field by changing one or two small parts. No extra shop trips!



Today You Don't Have To Milk by Hand

If you work an electrical farm, that is. Most farmers do, and to mark 50 years of rural electrification, industry staged a week-long show

MAYORS in Pennsylvania P&L area signed "Week" proclamations. Allentown's Mayor Hock receives "Reddy" statue from District Mgr McHenry

PROGRESS toward complete rural electrification by companies and REA cooperatives was noted in shows,

ALL BUT TEN Connecticut farms are electrified, th luncheon gathering of utility executives at Avon w

ate
on-

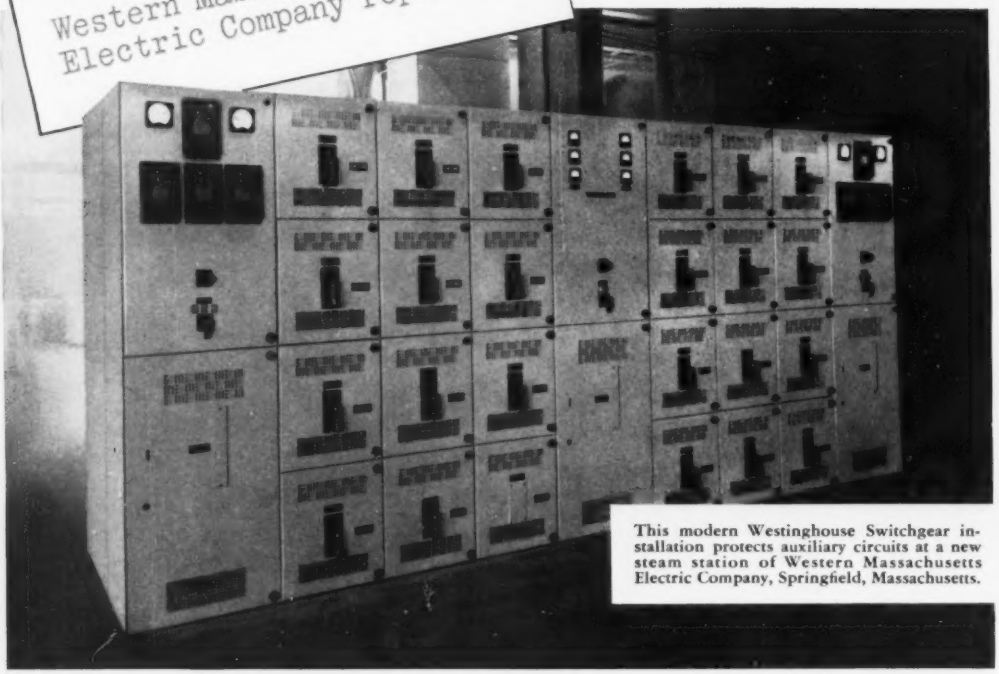
strations, and celebrations. Interested crowd, above, gathered around model farm erected by Northern States Power Co at Rural Electric Equipment Exhibit of Minnesota State Fair. Display was typical of many others throughout the country

farm
told

MARYLAND FARMER identified aerial photo of his farm, one of 75 in Consolidated of Baltimore's exhibit at local fair

TRAVELING TENT SHOW, called "Better Farming Electrically," was put on by Utah P&L Co at fairs in service area

Western Massachusetts Electric Company reports...



This modern Westinghouse Switchgear installation protects auxiliary circuits at a new steam station of Western Massachusetts Electric Company, Springfield, Massachusetts.

"COSTS LESS to apply... to install"

The experience of Western Massachusetts Electric Company demonstrates how Westinghouse Low-Voltage Switchgear helps to reduce power control costs. Specifically, they report:

Use of factory-assembled, low-voltage switchgear in connection with the supply to station auxiliaries on our West Springfield plant resulted in appreciable savings in two ways:

1. *Use of standard factory-assembled switchgear simplified installation and effected savings in installation costs.*
2. *Where switchgear is located adjacent to equipment being supplied, it was possible to use feeder breakers to control some of the large motors; thus, eliminating special motor control equipment.*

For central station services, industrial plants or large commercial buildings, Westinghouse Low-Voltage Switchgear offers you this same safe, low-cost means of protecting vital electrical services.

For complete information send for Booklet B-2296-D. Address: Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pa.

J-60754

YOU CAN BE SURE.. IF IT'S

Westinghouse

LOW-VOLTAGE SWITCHGEAR

G&T Co-op in Missouri Gets Supplemental Loan

A supplemental loan of $5,477,000 has been approved for the N. W. Electric Power Cooperative of Cameron, Mo., to enable it to complete its proposed generation and transmission system.

This brings to $23,870,000 the total Rural Electrification Administration loan to the cooperative. N. W. proposes to provide power to its seven member co-ops and to transmit power to Kamo Electric Cooperative of Vinita, Okla.

MEETINGS

Edison Electric Institute
Merchandising Committee, Nela Park, Cleveland, September 24-25; Prime Movers Committee, Statler Hotel, Buffalo, N. Y., October 1-2; Meter Service Committee, Purdue University, Lafayette, Ind., October 1-3; Electrical Equipment Committee, New Ocean House, Swampscott, Mass., October 8-9; Transmission-Distribution Committee, Sheraton Hotel, Rochester, N. Y., October 10-11.

International Association of Electrical Inspectors
Northwestern Section, Hotel Davenport, Spokane, Wash., September 19-21; Western Section, Hotel Fontenelle, Omaha, Neb., September 25-27; Eastern Section, Hotel Claridge, Atlantic City, N. J., October 1-3; Southern Section, Hotel John Marshall, Richmond, Va., October 15-17.

★Pennsylvania Electric Association
Annual Meeting, Benjamin Franklin Hotel, Philadelphia, September 18-19; Transmission-Distribution Committee, Hotel Concord, Northeast, Pa., October 11-12; Hydraulic Power Committee, Irem Temple Club, Dallas, Pa., October 11-12; Joint Relay-Communications Committee, Emerson Hotel, Baltimore, Md., October 18-19; Electrical Equipment Committee, Penn Alto Hotel, Altoona, Pa., October 22-23; Meter Committee, Arlington Hotel, Oil City, Pa., October 25-26; Primer Movers Committee, Fort Stanwix Hotel, Johnstown, Pa., November 1-2; Systems Operation Committee, Split Rock Lodge, Split Rock, Pa., November 8-9.

Public Information Program
Annual Workshop Conference, Edgewater Beach Hotel, Chicago, September 20-21.

Wisconsin Utilities Association
Accounting Section, Plankinton House, Milwaukee, Wis., September 20-21.

Public Utilities Association of the Virginias
Annual Meeting, Greenbrier Hotel, White Sulphur Springs, W. Va., September 21-22.

★American Society of Mechanical Engineers
Fall Meeting, Hotel Radisson, Minneapolis, Minn., September 25-28; Annual Meeting, Chalfonte-Haddon Hall, Atlantic City, N. J., November 25-30.

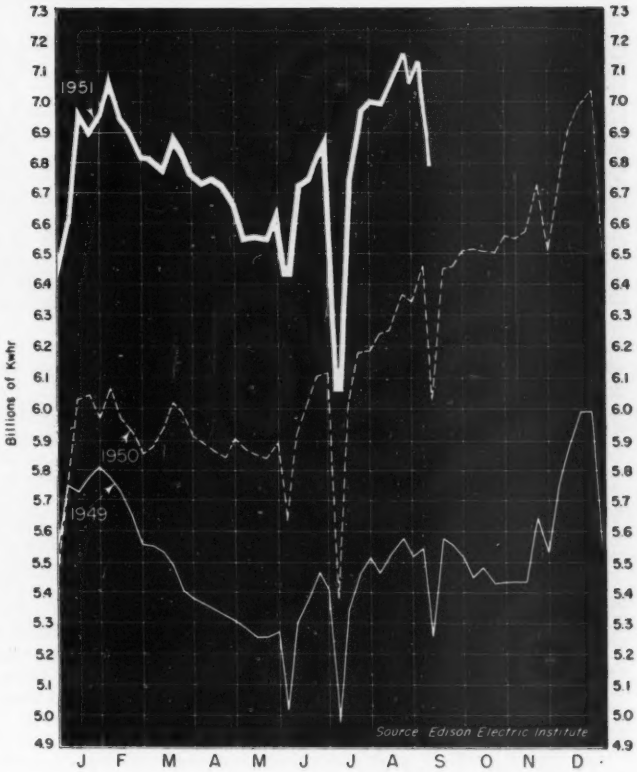
Iowa Utilities Association
Management Conference, Fort Des Moines Hotel, Des Moines, Iowa, October 1-2.

★Southeastern Electric Exchange
Engineering-Operation Section Conference, John Marshall Hotel, Richmond, Va., October 4-5; Accounting Conference, Sir Walter Hotel, Raleigh, N. C., October 12-13; Sales Conference, Roosevelt Hotel, New Orleans, La., October 31, November 1-2.

National Farm Electrification Conference
Annual Meeting, Hotel Gibson, Cincinnati, October 9-10.

National Electrical Contractors Association
Annual Convention, Shoreham Hotel, Washington, D. C., October 8-12.

Indiana Electric Association
Annual Convention, French Lick Springs Hotel, French Lick, Ind., October 10-12.



Output Week Ended Sept. 8—6,795,370,000 Kwhr

Weekly Output, Millions Kwhr			Percent Change from Previous Year			
1951	1950	1949		Sept 8	Sept 1	Aug 25
Sept 8 6,795	Sept 9 6,029	Sept 10 5,258	New England	+ 2.7	+ 3.1	+ 2.7
Sept 1 7,146	Sept 2 6,459	Sept 3 5,544	Mid-Atlantic	+ 9.2	+ 6.3	+10.1
Aug 25 7,077	Aug 26 6,346	Aug 27 5,523	Central Industrial	+ 9.1	+ 7.7	+ 7.7
Aug 18 7,164	Aug 19 6,370	Aug 20 5,579	West Central	+14.3	+15.1	+10.3
Aug. 11 7,070	Aug. 12 6,253	Aug. 13 5,530	Southeast	+12.9	+11.7	+11.2
Aug. 4 7,003	Aug. 5 6,247	Aug. 6 5,466	South Central	+48.9	+36.1	+32.9
July 28 7,005	July 29 6,190	July 30 5,518	Rocky Mountain	+ 2.0	— 5.6	+ 8.9
July 21 6,975	July 22 6,186	July 23 5,462	Pacific Coast	+12.1	+13.3	+13.7
July 14 6,739	July 15 6,006	July 16 5,342				
July 7 6,077	July 8 5,380	July 9 4,982	Total United States	+12.7	+10.6	+11.5

International Association of Electrical Leagues
Annual Conference, Roosevelt Hotel, New Orleans, October 10-13.

Association of Edison Illuminating Companies
Annual Meeting, The Greenbrier, White Sulphur Springs, W. Va., October 11-13.

National Association of Railroad and Utilities Commissioners
Francis Marion Hotel, Charleston, S. C., October 16-19.

Public Utilities Advertising Association
Hotel Cleveland, Cleveland, Ohio, October 18-19.

National Association of Corrosion Engineers
South Central Region Meeting, Robert Driscoll Hotel, Corpus Christi, Tex., October 18-20.

National Electronics Conference
Annual Conference, Edgewater Beach Hotel, Chicago, October 22-24.

American Institute of Electrical Engineers
Fall General Meeting, Hotel Cleveland, Cleveland, Ohio, October 22-26.

American Standards Association
Annual Meeting, Waldorf-Astoria, New York, October 22-24.

★Electrical Inspectors' Association of British Columbia
Annual Conference, Hotel Georgia, Vancouver, B. C., November 2-3.

★Northwest Public Power Association
Accounting Section, Governor Hotel, Olympia, Wash., November 8-9.

★National Electrical Manufacturers Association
Chalfonte-Haddon Hall Hotel, Atlantic City, N. J., November 12-15.

★New Jersey Utilities Association
Annual Meeting, Seaview Country Club, Absecon, N. J., November 15-17.

★Pacific Coast Electrical Association
Annual Hawaiian Conference, Royal Hawaiian Hotel, Honolulu, T. H., November 29-30.

★Wisconsin Utilities Association
Electric-Gas Sections, Sales-Engineering Divisions, Schroeder Hotel, Milwaukee, Wis., November 14-16.

★Addition this week.

YIELDS (%) — Operating Electric Utility Securities

Quality	Bond			Preferred Stock			Common Stock		
	1st	2nd	3rd	1st	2nd	3rd	1st	2nd	3rd
DATE									
1951									
Sept. 6	2.85	2.87	3.04	4.06	4.23	4.57	5.49	6.15	7.02
Aug. 30	2.85	2.89	3.05	4.07	4.24	4.59	5.53	6.14	7.03
END OF QTR.									
2nd 1951	3.02	3.11	3.23	4.11	4.37	4.68	5.73	6.38	7.37
1st 1951	2.87	2.93	3.00	3.96	4.19	4.52	5.47	6.20	7.13
4th 1950	2.65	2.67	2.78	3.86	4.14	4.51	5.80	6.54	7.44
3rd 1950	2.66	2.67	2.76	3.81	4.08	4.46	5.70	6.54	7.25

Data: Reis & Chandler, Inc.

Florida Power Is Seeking Pinellas County Rate Hike

Florida Power Corp has countered a court decision upholding the Pinellas Utility Board's order to the company to cut rates $500,000 with a request to the Florida Railroad and Utilities Commission for a rate increase. In addition, the utility plans to appeal the court decision.

The company seeks a $1,217,000 annual rate boost in Pinellas County to bring the rates in that county to the same level as those charged customers in 30 other Florida counties served by Florida Power.

Commenting on the application for increased rates, W. C. Gilman, president of Florida Power, said, "After a careful survey of all the facts the company has determined that [a rate increase is the] only recourse which will enable it to earn a rate of return sufficient to attract, at reasonable cost, the large amounts of capital required for its expansion program to service its customers."

If the commission should grant Florida Power an increase, it would not nullify the retroactive portion of the county board's reduction order which was promulgated in April, 1950. The utility would have to make refunds covering the period from that date until commission-approved higher rates were put into effect. As a result of the court decision, Florida Power already has been ordered to return to its consumers $746,664 held in escrow.

On the West Coast three Oregon utilities have applied to Oregon State Public Utilities Commission for permission to collect from their customers surcharges of from 5 to 30% to pay for operating steam generating plants during anticipated water power shortages this fall and winter. The petitioners, Pacific Power & Light Co, Portland General Electric Co, and Mountain States Power Co, explain that the surcharges would reflect only the actual extra costs and would be dropped as soon as stream flows increase the power supply.

Two other utilities also seek higher rates. Central Hudson Gas & Electric Corp has asked New York's Public Service Commission for an 8½% boost effective Nov. 26. And President W. C. Mullendore of Southern California Edison Co has announced that his company is preparing to ask for a general rate increase and hopes to have its case ready soon.

FINANCIAL BRIEFS

Kalman & Co and **W. R. Olson & Co** sold quickly secondary offering of 2,700 common shares of Otter Tail Power Co at $21.87½ a share . . . **Commonwealth Edison Co** stockholders will vote Oct. 25 on proposal to increase authorized common stock to 24 million shares compared with 16 million now and to authorize five million shares of $25 par preferred . . . **Southern Colorado Power Co** has reported its offer of 30,970 additional shares of common to present holders at $9 a share was oversubscribed.

Ohio Power Co has asked SEC for approval to acquire for $230,000, the complete facilities of municipally owned generating plant and distribution system of Columbus Grove, Ohio.

Senate Finance Committee has modified its proposal to tax farm co-operatives. The new plan would make unallocated earnings of all farm co-ops taxable and raise less than the $30 million estimated under a previous plan.

Electric Utility Financing

Company	Description	Amount of Offering (000)	Offering Price	Yield at Price to Public
	WEEK OF SEPTEMBER 5-12			
Bonds				
Alabama Power	1st mtg, 3¼%, 1981 new money	$15,000	101.93%	3.15%
	SCHEDULED FOR SEPT. 12-19			
Bonds				
Province of Ontario, Hydro-Electric Power Commission	debs, 1972	$50,000*	.....	.....
Common Stock				
Utah Power & Light	175,000 sh	.....	.....	.....
	SCHEDULED FOR SEPTEMBER-OCTOBER			
Bonds				
New England Gas & Electric Association	coll tr, 1971	$6,115	Bid Date Oct. 1	.....
Public Service of Colorado	1st mtg	15,000	Oct. 2	.....
Arkansas Power & Light	1st mtg	8,000	Oct. 9	.....
Pennsylvania Electric	1st mtg	5,000	Oct. 9	.....
Utah Power & Light	1st mtg	9,000	Oct. 29	.....
Preferred Stock				
Pennsylvania Electric	30,000 sh	3,000	Oct. 9	.....
Common Stock				
Pennsylvania Power & Light	542,484 (1-for-7, record Sept. 18)	.....	Oct. 3**	
Consumers Power	561,517 sh (1-for-10, record Oct. 17)	.....	Nov. 2**	
	UNSCHEDULED—UNDER CONSIDERATION			
Bonds				
Idaho Power	1st mtg	$15,000	.....	.....
Preferred Stock				
Public Service Electric & Gas	249,942 sh	.....	.....	.....
Common Stock				
Public Service of Indiana	325,000 sh (1-for-10)	.....	.....	.....
Central & South West	500,000 sh	.....	.....	.....

*To be sold through Harriman Ripley & Co and Wood Gundy & Co group.
**Expiration date.

IN THE INDUSTRY

KEN KOST

Washington Water Power Co, the plum over which public utility districts, stockholders of American Power & Light Co, and its president, Howard L. Aller, are fighting, is indeed a juicy one.

The company, incorporated in 1889, serves a 26,000-sq mile area in eastern Washington, including Spokane, and Idaho. It has 113,500 customers in an area whose 1950 population was 425,000. Its 11 hydro plants have a total capacity of 203,210 kw. Its assets are over $85 million.

WWP has been a profitable operation. In 1941 with an operating revenue of $10,320,000, net income was $1,966,-000. Earnings per common share were 53¢. For the 12 months ended July 31, operating revenue was $17,-712,000 and net income $3,133,000. Earnings per share were $1.15, more than double the figure of ten years earlier. At no time during the period did earnings per share fail to exceed the 53¢ of 1941.

American owns the entire 2,541,800 shares of WWP common. Since 1941 American has never collected less than 50¢ a share per year. In 1950 AP&L got $2,160,530 on the basis of 85¢ a share. In the ten years the total was over $16 million.

WWP Plum Getting Juicier

But the plum will get juicier. WWP now has under construction the 200,000-kw Cabinet Gorge Plant. This plant on the Clark Fork of the Columbia River in northern Idaho will cost close to $35 million. Three units are due on the line in late 1952, the fourth in 1953. Then the company can eliminate nearly all of its power purchases. Net income will rise, according to testimony by company officials at a recent hearing before a SEC examiner (EW, Sept. 3, p 4), to slightly over $4 million. If the company is granted accelerated amortization, tax benefits would raise 1953 net income to around $6 million. Separation from AP&L would also save the expenses of the holding company.

Remember the Pacific P&L Sale

This is the plum that Howard L. Aller insists he will sell to three Washington public utility districts. He asserts that this will be best for the stockholders of American. Some of these have their doubts. They remember the sale of another subsidiary, Pacific Power & Light Co. This company, too, was headed toward the ranks of public power until SEC interfered. Finally it went to an investment syndicate at $9.28 a share. Since then resale of two blocks have been at $13 and $13.40 a share. Wary of a similar deal, some AP&L stockholders would like to put some WWP shares in their own safe deposit boxes. Aller, however, defends the PP&L sale on the ground that no one could have foreseen the greatly increased earnings of the company. Right or wrong, PP&L stock did increase sharply in value to the great profit of those in the original syndicate.

In evaluating the factors involved in the sale of WWP, there is one complicating factor—the value of the company's common stock. Since AP&L owns all of the shares, there is no known market value. Using one customary measuring stick (12 times earnings), the value of WWP common is around $35 million at present. Aller would sell to the PUD's at $56-61 million or to anybody for $70 million. This sounds like a good deal. However, if earnings should rise (and all indications are that they will), the deal loses much of its attractiveness. And if earnings should rise to $6 million, even the $70-million sale price would be nothing about which to boast.

Furthermore, the stockholders of American have another problem to think about. If they get the WWP common, they will have their money invested in a company promising continued high earnings. If the PUD's get the stock, they must find another place to invest their money. WWP stock will be off the market for all time. The only opportunity the PUD's will give investors is that of buying bonds, probably 2% tax free. This isn't a pleasant future for those who believe in private enterprise.

TECHNICAL NOTES

ARCHER E. KNOWLTON

Quartz crystals are the dielectric for new French power transformers for their Navy, for damp, dusty, and explosive atmospheres.

Stress on cross connections of a generator has at times been relieved by interchanging phase and neutral leads.

Unshielded generator-coils may have uniformly distributed leakage to the laminations until some defect develops, then the concentration leads to corona.

Excessive hydrogen leaks in one instance were traced to tapped but unused holes hidden behind welded-on struts. Consumption by the machine was 16 times normal leakage.

Free water will ride on the surface of askarel because askarel is heavier than water.

Askarel (also called Pyranol and Inerteen) may dissolve certain forms of gaskets and gasket cements unless the selection is on the basis of compatibility.

Impulse tests on transformers in the factory may take 1½ days but the fee is a small matter compared to the price of the transformer.

Gradient is accentuated wherever a thin film of air or gas intervenes between stressed insulation and grounded metal; ionization proceeds to rob the dielectric of its important constituents.

Cooling hydrogen consumption can be kept at a minimum by having a sensitive H-detector, making thorough preliminary pressure tests, and keeping accurate records of hydrogen makeup.

NEWS ABOUT PEOPLE

N. Y. State E&G Makes Lyons a Vice President

William A. Lyons has been elected a vice president of New York State Electric & Gas Corp. He will have charge of the company's residential

W. A. LYONS

and commercial sales activities in addition to his present duties as director of public relations.

Lyons joined New York State E&G in 1944 as assistant to the president. From 1941 to 1944 he served as comptroller of New York, Pennsylvania & New Jersey Utilities Co and before that as accountant, assistant to the comptroller, and assistant to the president of Utility Management Corp.

During World War II Lyons worked in the Office of War Utilities, War Production Board.

•

Dr Raymond C. Machler, associate director of research for Leeds & Northrup Co, has been appointed director of research of the company. He succeeds I. Melville Stein, recently named executive vice president. Machler joined Leeds & Northrup in 1929 as a research engineer and physicist and became associate director of research in 1948.

Elmer F. Kixmiller, manager at Greensburg for Public Service Co of Indiana, has been appointed general manager of Madison Light & Power Co. The Madison firm was formally taken over by Public Service Sept. 1. Kixmiller replaces **Marshall F. Tennis,** with Madison L&P since 1911, who has retired. **Lawson E. Williams,** Public Service North Vernon manager, succeeds Kixmiller at Greensburg. **Kenneth C. Cherry** has been named North Vernon manager. Kixmiller joined Public Service in 1924 and served as local manager at Bloomfield before becoming Greensburg manager in 1947.

James F. Owens, Jr, assistant to the manager for the St. Paul, Minn., division of Northern States Power Co, has been appointed manager succeeding **J. F. McGuire** who is retiring. Owens joined the company in 1932 and became assistant manager of the Fargo division in 1940. He became McGuire's assistant in 1946. McGuire became manager of Northern States' Minot division in 1912 and served as manager of several other divisions before going to St. Paul.

C. B. Smith, superintendent of service and erection of the Atlanta district since 1941 for Allis-Chalmers Manufacturing Co, has been appointed manager of the service and erection section of the company's general machinery division. He succeeds **L. A. Watts** who is retiring after 50 years' service. Watts will remain with Allis-Chalmers on special assignment until early in 1952. **C. P. Sukerbuyk,** special engineer at the company's Los Angeles district office since 1944, replaces Smith at Atlanta. Smith joined A-C in 1929 and Suykerbuyk in 1942.

Russell W. Parkinson has been appointed chief mechanical engineer of Commonwealth Services, Inc, Jackson, Mich. He succeeds **George C. Daniels** who has retired. **Henry F. Behrens** has been named assistant chief mechanical engineer, the position held by Parkinson since 1931. In other changes **Charles D. Birget** was made mechanical design engineer and **Bruce S. Moulton** plant electrical design engineer in the electrical department.

Kansas City P&L Elects Karl R. Koerper a VP

(See Front Cover)

Karl R. Koerper has resigned as vice president of Midland Broadcasting Co, Kansas City, to become vice president of Kansas City (Mo.) Power & Light Co. He assumes his new position Oct. 1.

Koerper will have charge of all sales and commercial activities for the utility and will direct the advertising and publicity department.

He became vice president of Midland Broadcasting, operators of KMBC, the CBS outlet in Kansas City, in 1938 and managing director in 1940. Previously he was vice president in charge of sales for Greiner-Fifield Lithographing Co, Kansas City.

Koerper was a founder and is now a member of the national Council on Radio in Journalism, a director of the Missouri Broadcasters Association, a member of the board of trustees of the William Allen White Foundation, and a director of the Kansas City Crime Commission.

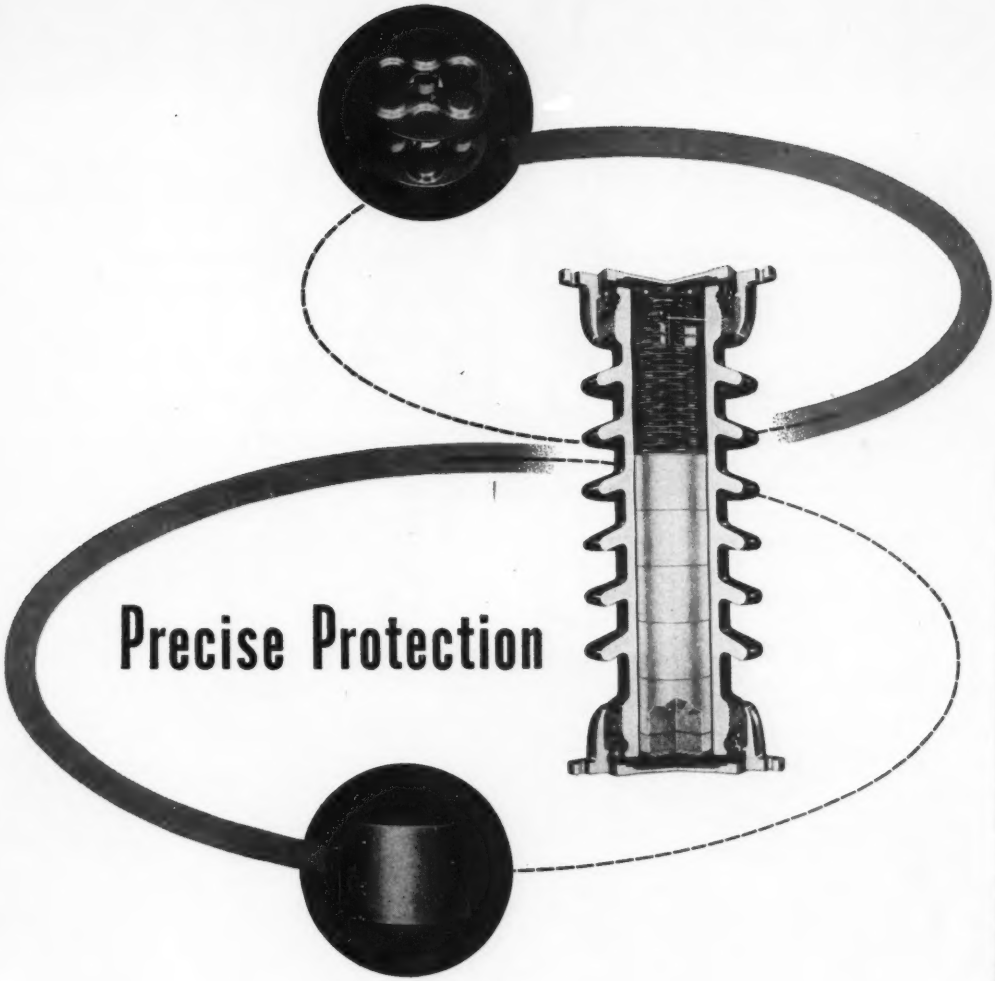
•

Charles F. Terrell, former vice president of Puget Sound Power & Light Co, has been appointed general manager in Greece by Ebasco Services, Inc. The company is building a modern power system in Greece. Terrell, who has been executive director of Nebraska Public Power system since last year, succeeds **Walter H. Burke.**

Sam O. Purdom, former chief engineer of the Southside generating station of Jacksonville (Fla.) Electric Department, has been named superintendent of the new municipal power plant at St. Marks, south of Tallahassee.

John C. Young, vice president of Texas Power & Light Co, has transferred to the company's general offices in Dallas where he will have charge of divisional operations. He has been district manager at Waco for the past ten years. **Bassett Watson** has

(Continued on page 27)



Precise Protection

In the final analysis, your lightning arrester dollar is invested in *protection.* The more sensitive the arrester, the more sure you are of this protection . . . The O-B Thorex arrester starts with very low average protection characteristics and to these adds only +10 per cent gap sparkover and +5 per cent valve block IR discharge tolerances; ultimately producing a protective device of exceptional ability . . . Investigate what the O-B Thorex *really offers you!*

Ohio Brass

MANSFIELD OHIO, U. S. A.

4139-H

A new 500-kva, General Electric network unit is lowered into its vault on North Pennsylvania Street, Indianapolis by an Indianapolis Power & Light Company crew.

Load grows in Indianapolis
...and a new G-E Network Unit goes in

It's as simple as that with a secondary network. There is little rearrangement of secondaries or service entrances with this modern distribution system.

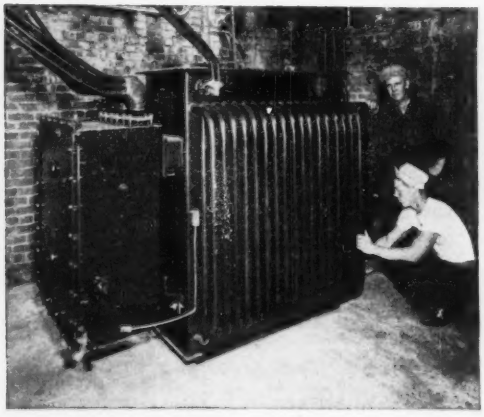
Better continuity of service is one big advantage of a secondary network. But, equally important to the utility is the elimination of headaches—and saving of rearrangement costs—as loads grow. Once a network system is installed, load growth can be taken care of by adding network units—*with seldom any other change or rearrangement required.*

This has been demonstrated in every city having such a system. Take Indianapolis, for example: Load increased greatly in the area around the post office on North Pennsylvania Street—modernization of stores, a new bank, and in general a healthy expansion of this business section.

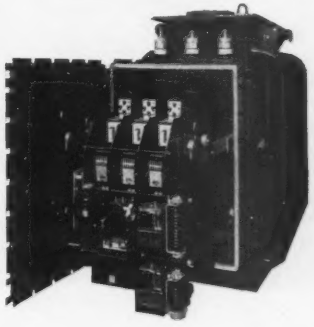
To serve this new load, the Indianapolis Power & Light Co. built a new vault and installed one 500-kva General Electric network unit.

The high-voltage feeder was already in the area—operating at 13,200 volts, it had plenty of capacity for the new load. The secondary was already in place . . . and with an established network system, the new unit was connected to this feeder and tapped in to reinforce the existing secondary grid. No redistribution of load was required, no rearrangement of service drops from one bank to another.

In every respect, with a network system, each added transformer represents an orderly step in system growth that was all provided for when the network was first engineered. For more information write for GEA-5024 and GEA-2017, *General Electric Company, Schenectady 5, New York.*



IN PLACE IN THE VAULT. This is the same unit shown on the opposite page after it was placed in the vault, and after cable connections were made. To the left is the throat-mounted General Electric network protector; at the right is the three-position disconnecting and grounding switch on the high-voltage side of the transformer.



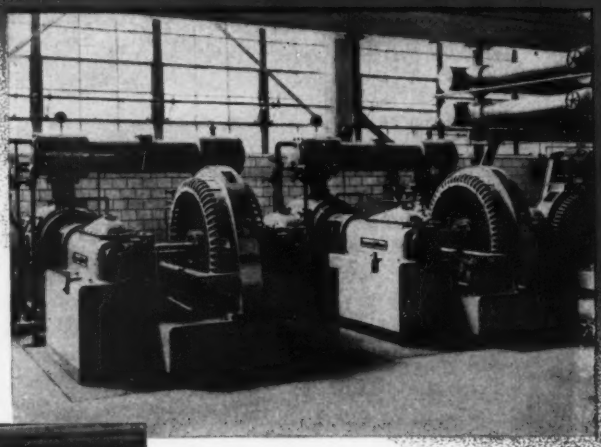
G-E NETWORK PROTECTORS ARE EASY TO INSPECT . . . EASY TO MAINTAIN. Automatic system protection on a network transformer is provided by the network protector which trips on reversal of power. When conditions are corrected, it recloses automatically. Protector case is submersible. With the door open, the protector unit can be slid out on rails for ready inspection. Dust-tight relays are of the plug-in type—can be easily removed for checking and replaced with spares.

GENERAL ELECTRIC

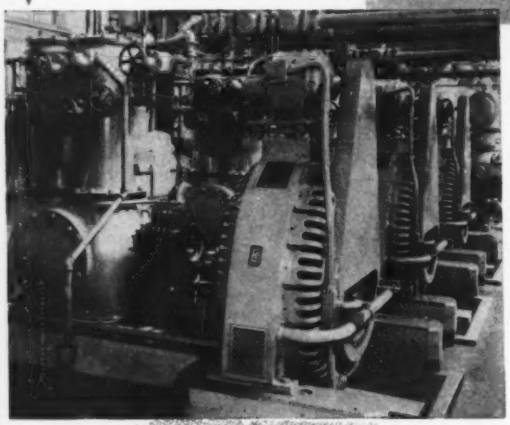
402-112

High Power Factor maintained with ELLIOTT SYNCHRONOUS MOTORS

Photo at right shows two Elliott 125-hp, 360-rpm motors driving air compressors. The off-center mounting of motor between the two compressor cylinders allows for stator shift. Motors have split rotors. Exciters are belt-driven, floor mounted.



Three Elliott 175-hp, 360-rpm synchronous motors with top-mounted exciters drive the refrigeration compressors. Necessary WK^2 has been incorporated in the motor design to eliminate necessity of separate flywheel.



Falls City Brewing Company, Louisville, Ky., in building a fine new power plant, selected Elliott synchronous motors for driving compressors. In addition to high power-factor maintenance, these motors, with their efficient "Fabri-Steel" design and construction, allow for the greatest flexibility in installation. Note, too, the attractive appearance of these installations—another indication of engineering excellence. Check on these popular Elliott synchronous motors for your next application. Write for bulletin PB5000-1 today.

Elliott FABRI-STEEL MOTORS AND GENERATORS

L-811

ELLIOTT COMPANY

RIDGWAY DIVISION • RIDGWAY, PA.

DEPT. EN

HARRISBURG, PA. • RIDGWAY, PA. • AMESBURY, MASS. • SPRINGFIELD, O. • NEWARK, N. J.

News About People

(*Continued from page* 22)

succeeded Young at Waco as district manager. He has served as assistant district manager there since 1945. Replacing Watson as assistant district manager is **J. T. Green,** electric power consultant for the utility.

A. Leroy Jameson, manager at Portsmouth, Va., for Virginia Electric & Power Co, has been appointed manager of the company's Albemarle district with headquarters at Williamston, N. C. He replaces **Sam P. Woolford,** who has been transferred to the utility's offices in Richmond, Va. Before going to Portsmouth five years ago Jameson managed local offices for Vepco at Farmville, Warrenton, and Arlington, Va.

Jack Riley has been named director of publicity for Carolina Power & Light Co. He has been journalism professor at the University of North Carolina and formerly was managing editor of Raleigh "News and Observer." Riley succeeds Bill Sharpe who resigned recently.

W. J. Miles has been appointed operations and construction engineer of the Lower Colorado River Authority, Austin, Tex. He will have charge of the production, operations, maintenance, and construction departments. Prior to his promotion Miles served as executive assistant to the general manager. The authority's chief engineer and assistant general manager, **G. E. Schmitt,** will supervise the office engineering, distribution engineering, and results engineering departments.

Cecil Harvey has joined the headquarters sales staff of the large motor division of Elliott Co, Ridgway, Pa. He has been assistant to the sales manager of Gibson Electric Co and formerly worked for Minneapolis-Honeywell Regulator Co.

C. R. Rudy, general sales manager of New York State Electric & Gas Corp, has retired after more than 24 years of service. He became power sales manager of Binghamton Light, Heat & Power Co, NYSE&G predecessor, in 1927 and was promoted to general sales manager in 1929.

Westinghouse Advances Jensen, Getz, Longwell

Westinghouse Electric Corp has appointed Herbert E. Jensen eastern district treasury manager. He succeeds E. C. Dehne recently made assistant treasurer and assistant secretary of the company (EW, Sept. 10, p. 217).

In other appointments Westinghouse named Harry H. Getz branch manager of the Buffalo manufacturing and repair plant and Robert R. Longwell Baltimore engineering and service manager.

Jensen has been treasury manager of the Westinghouse Elevator Division in Jersey City, N. J., for six years. He has been associated with the company's treasury operations since 1929 when he joined the Westinghouse elevator organization in Chicago.

Getz started working for Westinghouse in 1922 as a panelboard engineer in the Buffalo service department. Since then he has served as engineering supervisor and more recently as plant superintendent of the Buffalo plant.

Formerly engineering and service supervisor in the Baltimore office, Longwell has been with the company since 1924. He has held various positions in the company's switchgear engineering and district engineering and service departments.

•

Robert H. Walker has resigned as manager of the South Hadley (Mass.) Electric Light Department to become assistant to the president of Holyoke (Mass.) Water Power Co. He will have charge of power operations. Walker spent three years with the Holyoke utility before going to South Hadley.

James R. Largay, superintendent of Niagara Mohawk Power Corp's Amsterdam, N. Y., station since last year, has been named superintendent of the company's Albany steam station. He joined the utility in 1930 as a cadet engineer at the Troy coke plant and became assistant superintendent there in 1943.

Zack G. Taylor, assistant manager of lamp manufacturing for General Electric Co's Lamp Division, with headquarters at Nela Park, Cleveland, has retired after 39 years' service with GE. Before becoming assistant manager of lamp manufacturing in 1947, Taylor served as manager of the East Cleveland Lamp Works at Nela Park for four years. He joined the company at its Lamp Research Laboratory at Harrison, N. J., in 1912.

Edwin A. Williams, Jr, has been appointed chief engineer of Railway & Industrial Engineering Co, Greensburg, Pa. Prior to joining R&IE, Williams worked for General Electric X-Ray Corp and General Electric Co.

C. B. Cox has retired as engineer with the Bureau of Reclamation after 25 years' service with the agency to become office engineer for Aluminum Co of America.

OBITUARY

E. B. Rogers, 46, safety supervisor of Dallas Power & Light Co's distribution department, died Sept. 1. He had been with the company since 1930 starting as a laborer in the overhead lines division of the distribution department. He became safety supervisor in 1946.

Claude A. Andrus, 65, retired Seattle City Light electrical engineer, died at Seattle Aug. 25. He was in charge of designing City Light's Diablo Dam powerhouse on the Skagit River. He retired in 1939.

Thomas D. Lebby, chief of the Tennessee Valley Authority's construction and maintenance department, died at Chattanooga, Tenn., Sept. 1.

William B. Fincher, 61, district manager of Ohio Brass Co, died Aug. 20. He joined Ohio Brass in 1920 and devoted his entire career to the sales territory served from Dayton.

John D. Himebaugh, 44, public utilities specialist with the Federal Power Commission, died at Ocean City, Md., Aug. 26.

Allen G. Dewars, 59, manager of the system planning operating department of Northern States Power Co, Minneapolis, died Aug. 26. He had been employed by the company for 37 years.

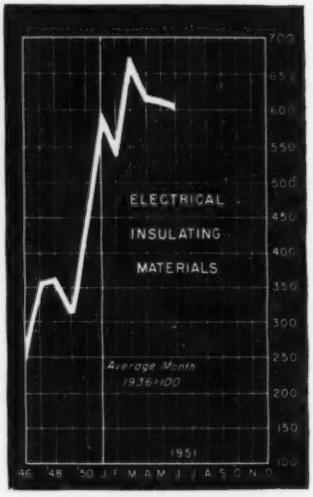
MANUFACTURERS and MARKETS

IN CELEBRATION of its 75th anniversary, Chase Brass & Copper Co has been staging local "pop" concerts. Chase president, Richard C. Diehl, left, greets Mario DiCecco, conductor of the Waterbury Civic Orchestra, at one of the concerts

Insulating Materials Sales Decrease Again in June

Sales of electrical insulating materials continued to decline in June, falling 1% below those for May.

The index of sales billed, compiled by the National Electrical Manufacturers Association, dropped to 610 in June compared with 614 in May. June sales, however, were 36% higher than those for June, 1950, when the index read 449.



Westinghouse to Build Big Power Transformers

Westinghouse Electric Corp will build the three most powerful transformers in the world and two others which will rank among the largest in physical size.

The three most powerful transformers are 190,000-kv-amp units ordered by Detroit Edison Co for installation in its new St. Claire Station. Each transformer will handle 250,000 hp of electrical energy and will be built to operate at 138 kv.

Westinghouse in 1949 shipped to Detroit Edison a 145,000 kv-amp unit which was at that time the most powerful transformer ever to be constructed.

The two transformers which will be among the largest in physical size are 150,000 kv-amp units destined for Central Illinois Public Service Co. Each will be as large as a six-room house (31 ft sq and 28 ft high) and will weigh about 250 tons. For each transformer forced air-cooling from 30 electric fans and six oil circulating pumps will carry away the heat generated. This will improve efficiency.

Because the latter units will handle higher voltages—230 kv—and use air instead of water as the cooling medium, they must be physically larger than the more powerful 190,000 kv-amp transformers ordered by Detroit Edison.

The Detroit Edison transformers will be cooled by 500 gallons of water passing through four external heat exchangers every minute. The water running through copper pipes in the heat exchanger will serve to cool the oil which is circulated through the transformer and the heat exchangers by means of four oil circulating pumps. These transformers will weigh 160 tons each and will stand 23 ft high.

Metal Prices
Sept. 11, 1951

COPPER, Conn., V., lb	$ .24½
LEAD, N. Y., lb	.17
ZINC, prime Western, E. St. Louis, lb	.17½
TIN, Straits, qual. N. Y., lb	1.03
ALUMINUM, ingot, base price	.19
NICKEL, base price	.56½
STEEL, billets, Pitts., ton	56.00
STEEL, scrap No. 1 heavy, Pitts., ton	45.00

MANUFACTURING BRIEFS

Employment in the electrical machinery, equipment, and supplies manufacturing industry in California reached an all-time high in June, according to a report of the Department of Industrial Relations. Wage and salary workers numbered 32,600, an increase of 25% over the wartime peak established in June, 1944, and 34% above the total of 24,300 in June, 1950.

Cutler-Hammer, Inc, Milwaukee, manfacturer of electric control appliance switches, is building a three-story addition to its main plant. The new struc-

ture will add 100,000 sq ft of additional floor space to the plant. Estimated cost of the addition is $880,000.

General Electric Co's payroll at the Hanford Works near Richland, Wash., topped 8,800 Aug. 1 and is expected to exceed 9,000 by the end of this year. The payroll now is at the highest point since GE began operation of the government project for the Atomic Energy Commission in 1946.

Westinghouse Electric Corp's bill for advertising its products on telecasts of 19 college football games will come to nearly $2 million. The company will spend about $1,250,000 for a seven-game package on 52 stations and affiliates of the National Broadcasting Co extending from coast-to-coast and $500,000 to $700,000 for newspaper advertising in connection with the telecasts.

Labelon Tape Co is moving to larger quarters at 450 Atlantic Ave, Rochester 9, N. Y. Formerly located at 100 Anderson Ave, Rochester 7, N. Y., the firm manufactures pressure-sensitive labeling tape.

SALES ASSIGNMENTS

COMPANY STAFFS

Reliance Electric & Engineering Co, Cleveland, has added four sales application engineers, a sales analyst, and two field service engineers to its staff. The new sales application engineers are Ralph D. Abercrombie, Jr, Buffalo, N. Y.; Rex T. Willard, Atlanta; Merle Kip Sieber, New York; and Nicholas D. McKay, Detroit. John H. Stevens has been given a temporary special assignment as sales analyst at the company's Newark, N. J., office. Cecil D. Wright and Charles F. Carnish will serve respectively as field service engineers at Charlotte, N. C., and Detroit.

Locke Department of General Electric Co has named Charles B. Vaughn regional manager of the North Central region. He will make his headquarters in Pittsburgh, Pa. Vaughn has been with Locke for 12 years and for the past six years has been district manager in Pittsburgh. Robert W. Sebastian has been appointed district manager of the Chicago office. He has been engaged in sales work since he joined Locke in 1946.

Wagner Electric Co, St. Louis, has named M. B. Atkinson manager of the Detroit office and A. W. Maas manager of the San Francisco office. Atkinson, formerly a salesman in the Detroit office, replaces R. L. Wells who has retired and Maas, sales engineer, succeeds E. D. Pike, retired.

NEW ELECTRICAL CONSTRUCTION

A weekly selection of U. S. electrical construction projects announced by private and government utility systems involving more than $70,000. Also listed are major industrial and construction jobs where electrical work is indicated or implied

UTILITIES

Proposed Construction

Arizona—Bureau Reclamation, Dpt. Interior, Phoenix, Cochise sub-station, Spec. 300C-29, Davis Dam Proj.

Iowa-Missouri—Atchison-Holt Electric Co-operative, John Buck, pres., Rock Port, Mo., 70 mi. rural distr. lines in Fremont and Page Counties in Iowa and Holt and Nodaway Counties, Missouri, Proj. Missouri 32R Atchison. Plans deposit $10. Henningson, Durham & Richardson, Inc., 6262 Standard Oil Bldg., Omaha, 2, Nebr., engrs.

Minn., Blue Earth—City, Bd. P. Wks., J. J. Kehr, secy., boiler room, install piping, misc. equip. and controls in municipal power plant. $300,000. Plans deposit $25. Helmick & Lutz, 405 Essex Bldg., Minneapolis, engrs.

North Carolina—Blue Ridge Electric Membership Corp., c/o Schmidt Engr. Co., engr., 817 Broad St., Chattanooga, Tenn., dam and electric on New River, Ashe Co. $15,500,000.

Oregon—Portland General Electric Co., Electric Bldg., Portland, Ore., construct dam on Deschutes River at Round Butte location, below confluence of Metolius and Crooked Rivers, $37,250,000. Preliminary FCC permit sought.

South Dakota—U. S. Eng., 1709 Jackson St., Omaha, Neb., outdoor switchgear and station service equip., Fort Randall Dam Proj. Inv. 52-19.

Texas—Brazos River Conservation & Reclamation Dist., c/o R. D. Collins, secy.-mgr., Mineral Wells, Bee Mountain Dam on Brazos River as water conservation and hydro-electric power house, south of Cleburne, Johnson, Bosque and Comanche Counties. $11,000,000. Ambursen Eng. Corp., M & M Bldg., Houston, consult. engrs.

Washington—Bureau Reclamation, Dpt. Interior, Bldg. 53, Denver Federal Center, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Othello, outdoor power transformers; outdoor distr. transformers; outdoor lightning arresters; outdoor horn-gap switches; and outdoor fuse disconnecting switches for switchyard at Upper Scooteney (PE-27A), Upper Scooteney Relift (PE27A Relift) Lower Scooteney (PE 27), Lower Saddle Gap (PE16.4.4) and PE-17 Pumping Plants, Columbia Basin Proj. Inv. No. DS-3529.

Alaska, Fairbanks — Golden Valley Electric Assn., Fairbanks, 4,000-kw. steam generating plant and approx. 90 mi. transmision lines, $3,615,000.

Alaska, Kodiak — Bureau Yards & Docks, Navy Dpt., Arlington, Va., naval radio station. $2,225,000. Leo Daly Co., 633 Insurance Bldg., Omaha, Neb., consult. engr.

Sask., Saskatoon—Provincial Dpt. P. Health, Legislative Bldg., Regina, brick power house on campus of University of Saskatchewan. $1,500,000. H. H. Angus & Assoc., Ltd., 615 Yonge St., Toronto, Ont., consult. engrs.

Low Bidders & Contracts Awarded

Kan. Kansas City—W. T. Conroy, 1525 Locust St., Kansas City, Mo., LB $241,-443, four steam generating units at power plant incl. bldg. alterations at University of Kansas Medical Center. State Bd. Regents, State House, Topeka, Kan. Charles Marshall, state archt.

Mass., Weymouth—Thomas O'Connor & Co., Inc., 238 Main St., Cambridge, Mass. CA $1,000,000. Contr. 5, superstructure, mfg. electric power plant, incl. fdn., North Weymouth. Boston Edison Co., 39 Boylston St., Boston, Mass. Jackson & Moreland, 31 St. James Ave., Boston, Mass., engrs.

N. Y., Mineola—Brown & Matthews, Inc., 122 E. 42 St., New York, N. Y. CA. Approx. $3,800,000. 1 story 280 sq. ft. electronic parts plant, 2 story 100-100 ft. office, Old Country Rd. for Arma Corp. Roosevelt Field, Inc., c/o Webb & Knapp, Inc., 270 Park Ave., New York, N. Y. Alexander D. Crosett, 27 William St., New York, N. Y. engr. and archt.

South Carolina—Daniel Constr. Co., 429 N. Main St., Greenville, S. C., L.B. $497,-745. sub-structure of steam generating plant, South Carolina. South Carolina Public Service Auth., Moncks Corner, S. C. Bids Aug. 27.

Tex., Dallas—O'Rourke Constr. Co., 1001 W. Commerce St., Dallas, Tex., CA $206,000. warehouse. General Electric Co., 1801 N. Lamar St., Dallas, Tex.

Tex., Roma — Westinghouse Electric Corp., Union Bank Bldg., Pittsburgh, Pa., LB. $356,470, four 17/500/3/333/29/167 kva power transformers for United States and Mexican power plants. Falcon Dam and Power Plant, Spec. D 4541 (IBWC). Bureau Reclamation, Dpt. Interior, El Paso, Tex. Bids Aug. 2.

Tex., Roma — Baldwin-Lima-Hamilton Corp., 60 E. 42 St., New York, N. Y., CA. $560,000. Four 168 in. butter-fly valves and 4 control units for Mexican side, Spec. D-4535 (IBWC) Falcon Dam and Power Plant. Bureau Reclamation, Dpt. Interior, El Paso, Tex. Bids July 31, awarded Aug. 21.

Ont., Chalk River—Foundation Co. of Canada, Ltd., 1900 Sherbrooke St., W., Montreal, Que., CA. Approx. $30,000,000. Atomic reactor plant at atomic development here. National Research Council, Sussex St., Ottawa, Ont.

Ont., Kitchener—Ontario Hydro Electric Power Comn., 620 University Ave., Toronto, Ont. Own Forces. Approx. $3,-900,000. Hydro-electric power station 3 mi from Kitchener, Ont.

INDUSTRIAL, COMMERCIAL & PUBLIC BUILDINGS

Proposed Construction

Calif., Richmond—Parr-Richmond Industrial Corp., Fred D. Parr, pres., 600 S. 4 St., 4,000 dwellings, modern shopping center on 2,625 acres north of Berkeley and east of El Cerrito Canyon. $70,000,-000.

Mich., Detroit—Dpt. Navy, 18 St. and Constitution Ave. N.W., Wash. 25, D. C., mfg. plant to make jet aircraft engines on 310 acre site on Van Dyke Rd., $90,-000,000. Chrysler Corp., 1220 E. Jefferson St., will operate.

Neb., Lincoln—U. S. Eng., 1709 Jackson St., Omaha, reactivation municipal airport for Lincoln Air Force Base, incl. aprons, runways, pavement, water supply, bldgs., hangars, various quarters and housing for base personnel, warehouses, etc. $29,500,000.

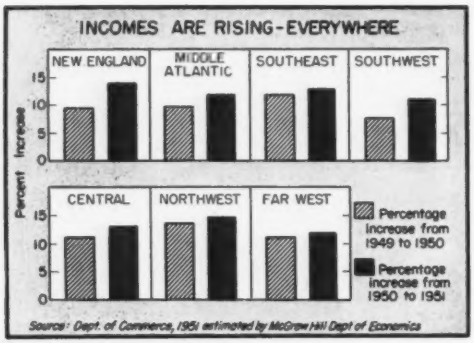
O., Painesville—Diamond Alkali Co., Union Commerce Bldg., Cleveland, Zone 14, 2 year expansion program to increase production caustic soda and chlorine by the electrolytic method, Nursery Rd. $10,-000,000.

Low Bidders & Contracts Awarded

No. Car., Charlotte—South Eastern Constr. Co., 301 W. Second St., Charlotte, N. C., CA. Approx. $1,000,000. Chemical plant addn. Reichhold Chemicals, Inc., 30 Rockefeller Plaza, New York 20, N. Y.

O., Toledo—M. W. Kellogg Co., 225 Broadway, New York, N. Y., CA. Approx. $7,000,000. Catalytic cracking unit with 15,000 bbl. gas-oil capacity daily; polymerization unit at Toledo refinery, Bay Shore and Otter Creek Rd. Pure Oil Co., 35 E. Wacker Dr., Chicago, Ill. Awarded Aug. 8.

Electrical Business Outlook



INCOME GAINS from 1950 to 1951 will be pretty evenly spread among regions and will range from 11 to 14%. Regions do not correspond exactly to those used by EEI and FPC

A Bigger Market for Power and Appliances

How many people can afford electricity? How many of them can afford major appliances which use a lot of electricity? Where do most of them live?

These are old—and basic—questions. And some of our answers are old, too. That is, they are based on old statistics. But recently the government has come up with a basket full of new answers, based on 1950 surveys. And they're worth looking at closely.

Everyone knows personal incomes have increased sharply in the postwar period. But the really startling figures are those for 1949-51 (chart above). The Commerce Department's statistics show that Korea and subsequent events have set off tremendous changes in the overall level and regional distribution of purchasing power.

People Are Earning More Money

The Northwest region, for example, showed a 14% gain from 1949 to 1950, a similar jump is indicated for 1951. The smallest gains—in the Southwest—are 8% and 11%. Income changes will probably not be so rapid hereafter. But the process of boosting and shifting incomes has gone a long way.

More evidence comes from the Federal Reserve Board's latest Survey of Consumer Finances. In addition to a maze of figures on how many families there are in each income group, classified by occupations, the board found:

1. The average family's real income increased about 6% from 1949 to 1950—after allowing for higher taxes and higher prices. But from early 1950 to early 1951 prices rose as fast as incomes, and there was little change in purchasing power. That helps explain why appliance sales zoomed after Korea, then slumped this spring.

2. The high-income group ($5,000 a year or more) is now made up of different people than a few years ago. In 1946, this group was mostly—in fact, 2 to 1—managerial, professional, and self-employed. In 1950, there were as many factory, clerical, and sales workers over $5,000 as there were professionals and business men. These new high-income families make up the big electricity and appliance markets of the future. But these "newly rich" must be sold on the benefits of electricity and on a higher standard of living.

Income Is More Evenly Distributed

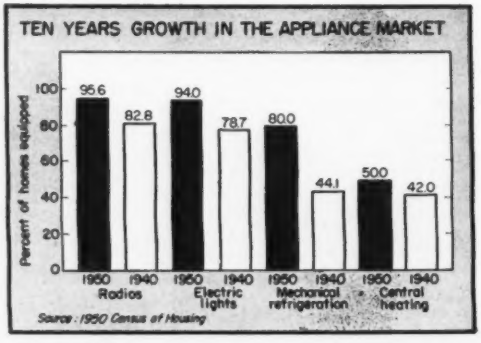
3. Income is getting more evenly distributed. Big gainers in the past few years have been the middle-income groups, with decreases in the share going to highest income families. The reason is the increase in farmer and worker earnings.

How big a difference can higher incomes—and better distributed incomes—make? When it comes to buying appliances, the long-term effects can be terrific. Look at what happened between 1940 and 1950 (Chart below).

The most complete figures, yet, on this subject come from the 1950 Census of Housing. Watch out how you use these figures. They include as "homes" anything a person might live in, while other series may include just permanent, occupied houses and apartments. But the historical census figures do show a striking trend.

In 1940, a little over three-fourths of our dwelling units had electric lights. In 1950, 94%—almost all—did. In 1940, less than half these units had refrigerators. In 1950, 80%—over three-fourths—did.

That gives you an idea of what might happen by 1960 in the case of some of the newer appliances, like the clothes drier, TV set, and electric range—if present income trends continue. Pretty clearly, we'll need all the electric capacity that is being put into place.



BIG INCREASE in number of homes with electrical appliances is the result of ten years' high income. Figures include transient quarters; temporary, rural, and unoccupied homes; so saturation estimates are lower than those usually used

Cut Installation Costs ... Save 2/3 of Installation Time ... Improve Appearance

WITH

THE NEW MOLONEY "packaged-unit"

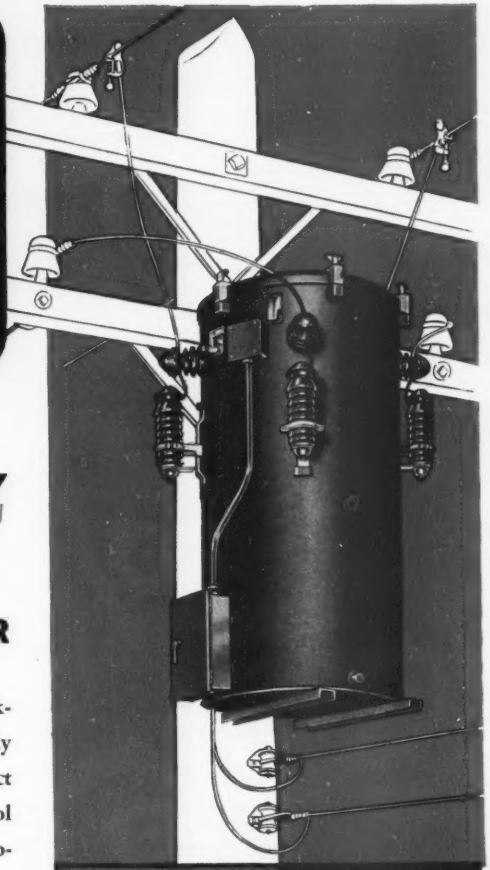
CONSTANT CURRENT TRANSFORMER

Save time and money with the new Moloney "Packaged-Unit" Constant Current Transformers. Simply hang the "Packaged-Unit" on the pole . . . connect primary and secondary leads . . . connect the control line . . . *and that's all!* Comes complete with all protective and control equipment incorporated as a part of the transformer to permit unit installation. No separate installations of lightning arrestors, primary fuse cutouts, oil switches or protective relays.

Write today to Moloney Electric Co., St. Louis 20, Mo., for Bulletin SL-702 giving complete information.

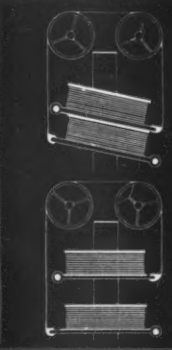
Sales offices in all principal cities

MESO-4



EXCLUSIVE MOLONEY FEATURE

Both coils move on Moloney transformers. Each coil moves only half the distance required by the moving coil of a single-moving-coil type regulator, on starting or during changes in load. This means quicker response ... longer lamp life. Diagram shows starting position (above) and half load position (below). Bottom and top coil move apart simultaneously.



MOLONEY ELECTRIC COMPANY

FACTORIES AT ST. LOUIS 20, MO. AND TORONTO, ONTARIO, CANADA

MOLONEY ELECTRIC

EXCITING CURRENT
Reduced 50%
WITH THE NEW Curvacore TRANSFORMER

1. *EFFICIENT CORE AND COIL ASSEMBLY*

The *Curvacore* distribution transformer has high electrical efficiency and low operating cost. It's designed with a-wound core made up of cold rolled oriented steel with high flux carrying capacity and low hysteresis loss. Improved coil design offers a more balanced arrangement of core steel to copper. Increased cooling area within windings keeps copper-to-oil gradient low.

Now, you get these added benefits:

1. Exciting current reduced 50%
2. Better ratio of losses
3. Regulation improved 15%
4. Thermal capacity improved
5. Size and weight reduced 15%.

The *Curvacore* distribution transformer is a good investment because its performance will save you money on your system. You get top performance for every dollar you spend.

2. *EXACTING FINISH EXTENDS TANK LIFE*

Formed from heavy gage steel, the *Curvacore* transformer tank is exceptionally strong and completely tight. Tank joints are machine welded to insure permanent protection against leaks and then pressure tested. Tanks are *Spra-Bonderized* and then painted with three coats of alkyd-resinous paint . . . each separately baked on. Previous to shipping, the completely assembled transformer is tested for oil tightness on a machine that tips it toward an inverted position.

Curvacore transformers are now being built in ratings 25 kva and lower. Soon higher ratings will be available.

For more information on *Curvacore* distribution transformers, see your local A-C representative. Or write Allis-Chalmers, Milwaukee 1, Wis. A-3413

New internally operated tap changer has handle and position indicating dial plate above the level of the oil.

Special treatment makes surfaces resistant to industrial and humid atmospheres and salt spray.

Gasket seals are thoroughly tested on the tilt table.

Curvacore is an Allis-Chalmers trademark.

Curvacore TRANSFORMERS

ALLIS-CHALMERS